Academic Calendars

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
Winter campus closure (tentative) . . . December 12–22, 27–29
Christmas holiday . . . . . . . . . . . . . . . . . . . . December 23, 26
New Year’s holiday . . . . . . . . . . . . . . . . . . . . . . January 1–2

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
Juneteenth holiday . . . . . . . . . . . . . . . . . . . . . June 19
Summer session begins . . . . . . . . . . . . . . . . . . June 26
Independent Day holiday . . . . . . . . . . . . . . . . . . July 4
Labor Day holiday . . . . . . . . . . . . . . . . . . . . . September 4
Summer session ends . . . . . . . . . . . . . . . . . . September 15

2023–2024

Fall Quarter 2023
Quarter begins . . . . . . . . . . . . . . . . . . . . . . . . . September 25
Instruction begins . . . . . . . . . . . . . . . . . . . . . September 28
Veterans Day holiday . . . . . . . . . . . . . . . . . . . November 10
Thanksgiving holiday . . . . . . . . . . . . . . . . . . November 23–24
Instruction ends . . . . . . . . . . . . . . . . . . . . . . . December 8
Common final examinations . . . . . . . . . . . . . . . December 9–10
Final examinations . . . . . . . . . . . . . . . . . . . . . December 11–15
Quarter ends . . . . . . . . . . . . . . . . . . . . . . . . . . . . . December 15
Winter campus closure (tentative) . . December 18–22, 26–29
Christmas holiday . . . . . . . . . . . . . . . . . . . . December 25–26
New Year’s holiday . . . . . . . . . . . . . . . . . . . . . . January 1–2

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

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

Summer 2024
Juneteenth holiday . . . . . . . . . . . . . . . . . . . . . June 19
Summer session begins . . . . . . . . . . . . . . . . . . June 24
Independent Day holiday . . . . . . . . . . . . . . . . . July 4
Labor Day holiday . . . . . . . . . . . . . . . . . . . . . September 2
Summer session ends . . . . . . . . . . . . . . . . . . September 13
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2022-23
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Los Angeles, California 90095-1361
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Speech- and hearing-impaired access: TTY 310-825-2833

For complete department and school address information, see the campus directory. For mailing address formats, see address standards for UCLA mail.

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

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

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

School Information Materials
Other information about UCLA may be found in materials produced by the College of Letters and Science, and the schools of Arts and Architecture; Dentistry; Education and Information Studies; Engineering and Applied Science; Law; Management; Medicine; Music; Nursing; Public Affairs; Public Health; and Theater, Film, and Television.

Current graduate program information, including officially approved graduate programs and requirements, is available on the Graduate Division website.

Production Credits
Claire McCluskey, Deputy Registrar
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Karen Robbins, Designer/Editor

The UCLA General Catalog is produced by the UCLA Registrar’s Office Curriculum and Scheduling/Academic Publications group using CourseLoop, FrameMaker, and other software.

Cover
Commemorating the 100 years UCLA has existed at its Westwood location, artist-professor Judith F. (Judy) Baca created a mural titled “The Memory of the Earth: UCLA” that showcases the past, present, and future of the place and the school. The mural was made through an innovative process that fused mineral pigments to glass panels. It stretches nearly 80 feet across the north side of Ackerman Union. For more information about the mural, see the ASUCLA story and UCLA Newsroom announcement.

Title page
Full-length view of “The Memory of Earth: UCLA” mural by Judith F. Baca.

Photography

Thanks to Chancellor’s Office; School of Engineering; UCLA Image Library; ASUCLA; and School of Theater, Film, and Television/Film and Television Archive for contributing photographs from their collections.
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From the Chancellor

This Catalog describes the incredible array of academic offerings available to you at UCLA. Choose from 5,000 courses each term, 137 bachelor’s degree programs, 142 master’s and professional degree programs, 124 doctoral and professional degree programs, and 103 minors as you build a course of study that suits your interests and aspirations. As a world-class research university with strengths in disciplines from the arts to the sciences, UCLA offers you a remarkable range of academic possibilities. Additionally, more than 70 percent of our undergraduate classes have fewer than 30 students—so you can learn in smaller settings and get to know your professors and classmates.

UCLA is a welcoming place for students from diverse backgrounds. Those admitted to our freshman class for 2021–22, for example, represent all 50 U.S. states and 116 countries. All of our students have a thirst for knowledge, and are determined to make a positive impact on society.

Our faculty of more than 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 aim to welcome our Bruin community with in-person instruction on the UCLA campus. Our team will inform you and the entire student body if delivery of instruction must change to preserve health and safety.

Despite the challenges we have all faced these past two years, UCLA remains a vibrant community of forward-looking achievers, who think outside traditional academic boundaries and share an exuberant desire to improve the world. We have accomplished so much in our first 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
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
Southeast Asian Studies ........................ BA
Teaching Asian Languages ..................... MA

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

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

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

Chicana/o and Central American 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 Cultural Heritage Interdepartmental Program
Conservation of Cultural Heritage ............. 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
Planetary Science ................................ MS, PhD

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

Ecology and Evolutionary Biology Department
Ecology, Behavior, and Evolution ............. BS
Marine Biology ..................................... BS

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

English Department
American Literature and Culture ............. BA
English .............................................. BA, MA, CPhil, PhD
Environment and Sustainability, Institute of the
Center for Interdisciplinary Instruction
Doctor of Environmental Science and Engineering . . . DEnv
Environment and Sustainability . . . . . . . . . . . . . . . . . . . MS, PhD
Environmental Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . BS

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

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
Linguistics and Anthropology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA
Linguistics and Asian Languages and Cultures . . . . BA
Linguistics and Computer Science . . . . . . . . . . . . . . . . . . . . . . . . . BA
Linguistics and English . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA
Linguistics and Philosophy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA
Linguistics and Psychology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA
Linguistics and Spanish . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA

Mathematics Department
Applied Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BS
Data Theory . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BS
Financial Actuarial Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . BS
Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BS
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: MS, MAT, PhD
- Astrophysics: BS
- Biophysics: BS
- Physics: BA, BS, MS, MAT, PhD
- Master of Quantum Science and Technology: MQST

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
- Master of 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
- Master of Applied Statistics: MAS
- Data Theory: BS
- Statistics: BS, MS, CPhil, PhD

Study of Religion Interdepartmental Program
- Study of Religion: BA

School of Education and Information Studies

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

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

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
  Engineer . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Engr
  Engineering . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MS
  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
  Master of Engineering . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MEng

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

Mechanical and Aerospace Engineering Department
  Aerospace Engineering . . . . . . . . . . . . . . . . . . . . . . . . . . . . BS, MS, PhD
  Manufacturing Engineering . . . . . . . . . . . . . . . . . . . . . . . . . . MS
  Mechanical Engineering . . . . . . . . . . . . . . . . . . . . . . . . . . . . BS, MS, PhD

Herb Alpert School of Music

Ethnomusicology Department
  Ethnomusicology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA, MA, CPhil, PhD

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

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

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

John E. Anderson Graduate School of Management

Management Department
  Business Analytics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MS
  Executive Master of Business Administration . . . . . . . . . . . . . . . EMBA
  Fully Employed Master of Business Administration . . . . . . . . . . . . FEMBA
  Global Executive Master of Business Administration for Asia Pacific . . . . . . . . GEMBA
  Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MS, CPhil, PhD
  Master of Business Administration . . . . . . . . . . . . . . . . . . . . MBA
  Master of Financial Engineering . . . . . . . . . . . . . . . . . . . . . . . . MFE

Jonathan and Karin Fielding School of Public Health

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

Community Health Sciences Department
  Community Health Sciences . . . . . . . . . . . . . . . . . . . . . . . . . MS, PhD
  Master of Public Health for Health Professionals . . . . . . . . . . . MPH-HP

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

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

Health Policy and Management Department
  Health Policy and Management . . . . . . . . . . . . . . . . . . . . . . . MS, PhD
  Executive Master of Public Health . . . . . . . . . . . . . . . . . . . . . EMPH
  Master of Healthcare Administration . . . . . . . . . . . . . . . . . . . . MHA

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

Public Health Schoolwide Programs

Biostatistics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MPH
  Community Health Sciences . . . . . . . . . . . . . . . . . . . . . . . MPH
  Environmental Health Sciences . . . . . . . . . . . . . . . . . . . . . MPH
  Epidemiology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MPH
  Health Management . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MPH
  Health Policy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . MPH
  Master of Public Health . . . . . . . . . . . . . . . . . . . . . . . . . . MPH

Meyer and Renee Luskin School of Public Affairs

Public Affairs Schoolwide Programs
  Public Affairs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . BA
Public Policy Department
Master of Public Policy .......................... MPP

Social Welfare Department
Master of Social Welfare .......................... MSW
Social Welfare ....................................... PhD

Urban Planning Department
Master of Urban and Regional Planning ...... MURP
Master of Urban and Regional Planning—Institut d’Etudes de Paris ......................... MURP
Urban Planning ................................. PhD

School of the Arts and Architecture

Architecture and Urban Design Department
Architectural Studies ............................... BA
Architecture ......................................... MA, PhD
Architecture and Urban Design ................ MS
Master of Architecture ............................ MArch

Art Department
Art .................................................. BA, MFA

Design|Media Arts Department
Design|Media Arts ................................. BA, MFA

Individual Field
Individual Field ................................. BA

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

School of Dentistry

Dentistry Department
Doctor of Dental Surgery ........................ DDS

Oral Biology Section
Oral Biology ....................................... MS, PhD

School of Law

Law Department
Doctor of Juridical Science ....................... SJD
Juris Doctor ...................................... JD
Master of Laws .................................... LLM
Master of Legal Studies ........................ MLS

School of Nursing

Nursing Department
Doctor of Nursing Practice ....................... DNP
Master of Science in Nursing ............... MSN
Nursing ............................................. BS, MS, PhD

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
European Languages and Transcultural Studies
European Languages and Transcultural Studies with French and Francophone
European Languages and Transcultural Studies with German
European Languages and Transcultural Studies with Italian
European Studies
Evolutionary Medicine
Food Studies
Gender Studies
Geochemistry
Geography
Geography/Environmental Studies
Geology
Geophysics and Planetary Physics
Geospatial Information Systems and Technologies
Global Health
Global Studies
Greek Language and Culture
Hebrew and Jewish Studies
History
History of Science, Technology, and Medicine
International Migration Studies
Iranian Studies
Israel Studies
Labor Studies
Latin Language and Culture
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 Data Science
Social Thought
Society and Genetics
South Asian Studies
Southeast Asian Studies
Spanish
Spanish Linguistics
Statistics
Structural Biology
Study of Religion
Systems Biology
Henry Samueli School of Engineering and Applied Science
Bioinformatics
Data Science Engineering
Environmental Engineering
Herb Alpert School of Music
Ethnomusicology
Iranian Music
Music Industry
Musicology
John E. Anderson Graduate School of Management
Accounting
Entrepreneurship
Meyer and Renee Luskin School of Public Affairs
Gerontology
Public Affairs
Urban and Regional Studies
Jonathan and Karin Fielding School of Public Health
Public Health
School of the Arts and Architecture
Visual and Performing Arts Education
School of Education and Information Studies
Education Studies
Information and Media Literacy
School of Theater, Film, and Television
Film, Television, and Digital Media
Theater
Computing Specializations
These departments in the College of Letters and Science offer a computing specialization to some or all majors. See the individual department section for details.

Chemistry
Communication
Ecology and Evolutionary Biology
Linguistics
Mathematics
Mathematics/Economics
Molecular, Cell, and Developmental Biology
Psychology
Sociology

Graduate Articulated and Concurrent Degrees
Inquiries about articulated and concurrent degree programs should be directed to graduate advisers in the departments and schools involved. Students should contact Graduate Admissions/Student and Academic Affairs for information on designing articulated programs.

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

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

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/Juris Doctor
American Indian Studies Interdepartmental MA/Juris Doctor
Asian American Studies Interdepartmental MA/Master of Public Health
Asian American Studies Interdepartmental MA/Master of Social Welfare
Community Health Sciences MPH/Master of Urban Planning
Doctor of Education/Juris Doctor
Education MA/Juris Doctor
Education PhD/Juris Doctor
Environmental Health Sciences MPH/Master of Urban Planning
Latin American Studies Interdepartmental MA/Master of Urban Planning
Master of Architecture/Master of Urban Planning
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 Interdepartmental 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 Planning
Master of Education/Juris Doctor
Master of Public Health/Juris Doctor
Master of Public Health/Master of Public Policy
Master of Public Health/Master of Social Welfare
Master of Public Policy/Doctor of Medicine
Master of Public Policy/Juris Doctor
Master of Social Welfare/Juris Doctor
Master of Social Welfare/Master of Public Policy
Master of Urban Planning/Juris Doctor
Philosophy PhD/Juris Doctor
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 prize winners, 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 137 bachelor degrees; graduate students may earn one of 142 master/professional and 124 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 2020-21 UCLA received $1.61 billion in extramural grants and contracts to support its research. Each year it hosts hundreds of postdoctoral scholars who share its facilities.

UCLA laboratories have seen major breakthroughs in scientific and medical research. Its study centers have helped foster understanding among the various cultures of the world. And its ongoing pursuits of new knowledge in vital areas continue to improve the quality of life for people around the world.

Faculty members teach both undergraduate and graduate courses and, through their research, create knowledge as well as transmit it. At UCLA, students are taught by the people making the discoveries. They exchange ideas with faculty members who are authorities in their fields and, even as undergraduate students, are encouraged to participate in research to experience firsthand the discovery of new knowledge.

Service

As a public university, serving the community is one of greatest commitments UCLA makes. Undergraduate and graduate programs, research activities, community outreach programs, and grass-roots participation by students, faculty, 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 47,500 students and 4,300 faculty members. With 223 campus buildings, classes are held in more than 85 facilities. As UCLA passes its 100th anniversary, it remains firmly rooted in Westwood but its reach is beyond borders, with programs and collaborations that span the country, the globe, and even outer space.

University of California System

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

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

The UC campuses have a combined enrollment exceeding 294,000 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 43,459 students, is enriched by an additional 4,108 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, 85 percent of lower-division lecture classes in 2020-21 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 2021 entering freshman class had an average high school GPA of 4.46.

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 141 foreign countries to study at UCLA. Ethnic minorities comprise 73.1 percent of the undergraduates and 69.1 percent of the graduate student population, and international students and scholars presently number over 6,800, 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 97 percent of all students entering as freshmen and 95 percent of all students entering as transfers regularly return to enroll at UCLA for the second academic year and beyond.

For entering freshmen, 85.2 percent graduate within four years, and 92.1 percent within six years. The average time to degree is 12 or fewer quarters (i.e., four or fewer years). For entering transfer students, 74.9 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 science 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 AD 300 and 1650. Programs include appointing visiting professors, organizing conferences, and supporting departments in inviting lecturers. The center sponsors two journals: Viator, with emphasis on intercultural and interdisciplinary studies; and Comitatus, with articles by graduate students and recent PhD graduates.

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

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

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

**Chicano Studies Research Center**

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

**Cotsen Institute of Archaeology**

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

**Crump Institute for Molecular Imaging**

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

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

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

**Institute for Research on Labor and Employment**

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

**Institute of Geophysics and Planetary Physics**

The **Institute of Geophysics and Planetary Physics** (IGPP) is a multicampus research unit of the University of California; the branch at UCLA researches climate dynamics, geophysics, geochemistry, space physics, biochemistry, and biology. Research topics include the nature of the Earth, moon, and other planetary bodies; global and regional environmental change; the origin of terrestrial life; dynamical properties of the sun and solar wind; and the nonlinear dynamics of complex systems. Facilities include analytical laboratories in geochemistry, meteoritics, glaciology, petrology, geo-
chronology, 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.
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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 Bruin Learn.

Disabilities and Computing Program

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

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

MyUCLA

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

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

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

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

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

Health and Safety Services

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

Arthur Ashe Student Health and Wellness Center

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

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

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

**Mental Health Services**

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

**Counseling and Psychological Services**

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

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

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

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

**Student Safety and Security**

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

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<th>UCLA EMERGENCY NUMBERS</th>
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UCLA Campus Assault Resources and Education (CARE) Prevention and Education Services—including workshops, self-defense classes, counseling, and referrals—increase physical and psychological preparedness and heighten awareness of the complex issues of rape, sexual assault, and relationship violence.

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

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

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

**UCLA Police Department**

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

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

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

**Incident Reporting**

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

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

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

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

**Crime Statistics and Reports**

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

**Community Service Officers**

UCPD employs approximately 50 student community service officers (CSO) who are the additional eyes and ears (trained observers) of the department and act as 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.

**Residential Housing**

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

Campuswide security and safety programs for residents are held throughout the year to increase awareness of potential crime and improve campus safety. To keep residents immediately informed of major crime or threats to the campus, crime alert bulletins are posted in residential areas by the housing staff. However, residents must take an active role to ensure their own safety by exercising simple common-sense crime prevention techniques. Anyone parking on campus should remember to lock their vehicle and consider investing in a locking device and/or alarm. Use CSO escorts when walking at night. Keep room and apartment doors and windows locked at all times. Most important, anyone needing assistance should not hesitate to contact the department.

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

**Associated Student Services**

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

**Student Government**

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

**Graduate Students Association**

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

**Undergraduate Students Association**

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

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

**Campus Events**

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

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

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

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

**Publications, Web, and Broadcast Media**

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

**Daily Bruin**

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

**Newsmagazines**

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

**Online Media**

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

**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, including those by faculty authors. Computer Store carries personal computers, peripherals, accessories, and software at
low academic prices. Essentials offers school and office supplies, including printer consumables. BearWear specializes in UCLA emblematic merchandise. Fast Track carries active sportswear and accessories for men and women. BeauxTrés 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, stu-
ents 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, test-taking facilitation, special parking assistance, real-time captioning, assistive listening devices, on-campus transportation, adaptive equipment, support groups and workshops, tutorial referral, special materials, housing appeals, referral to the Disabilities and Computing Program, and processing of California Department of Rehabilitation authorizations. There is no fee for any of these services. All contacts and assistance are handled confidentially.

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

**Central Ticket Office**

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

**Child Care**

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

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

**Dean of Students/Student Conduct**

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

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

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

**International Student Services**

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

Dashew Center for International Students and Scholars

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

Lesbian Gay Bisexual Transgender Campus Resource Center

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

Office of Ombuds Services

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

Parking and Commuter Services

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

Commuter Services

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

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

Parking Permits

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

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

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

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

Post Offices

Campus mail is handled by UCLA Mail, Document, and Distribution Services (MDDS), which offers full-service document processing and delivery for the campus community. ASUCLA operates a U.S. Postal Service express post office on A Level in Ackerman Union.

Residential Services

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

On-Campus Housing

Many students, especially those in their first year, choose to live on campus. Besides the convenience, campus living is a good way to meet other people and to find out about social and academic activities. Four residence halls, four deluxe residence halls, two residential suites, and five residential plazas accommodate over 11,000 undergraduate students.
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.

**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 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.

**Student Activities**

The opportunities to participate in extracurricular activities at UCLA are virtually unlimited, and are a good way for students to expand their horizons beyond classroom learning.
Clubs and Organizations
Joining a club or organization is a great way to meet other students with shared interests and to get involved in campus life.

Community Programs Office
The UCLA Community Programs Office (CPO) houses student-initiated community service projects that offer educational, legal, social, medical, and academic services to underserved communities in Southern California; seven student-initiated outreach projects that seek to improve the number of students from local underserved areas who attend colleges and universities; and five student-initiated retention projects that seek to ensure that all students who enter UCLA actually graduate. CPO programs foster a multicultural and ethnically diverse environment at UCLA.

Office of Fraternity and Sorority Life
Fraternities and sororities have been at UCLA since the early 1920s. Today UCLA is home to more than 70 national and local Greek-letter organizations that make up one of the largest Greek systems on the West Coast.

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

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

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

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

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

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

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

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

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

**Recreation**

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

**Intramural and Club Sports**

The UCLA **intramural sports** program consists of team, dual, and individual sports competition in tournament or league play. Over 7,000 participants compete throughout the year in various sports activities ranging from basketball to water polo. UCLA students and recreation membership holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.

**Club sports** offer students the chance to organize, coach, or participate in sports that fall beyond the scope of intramurals but are not offered at the varsity level. Coed teams exist in archery, badminton, boxing, Brazilian jiu-jitsu, climbing, cycling, dragon boat, equestrian, fencing, figure skating, golf, gymnastics, judo, kendo, powerlifting, quidditch, running, sailing, ski and snowboard, squash, swim, table tennis, taekwondo, tennis, track and field, triathlon, water skiing, wrestling, and wushu. Separate men’s and women’s teams exist in basketball, lacrosse, rugby, soccer, ultimate, volleyball, and water polo. There are also men’s teams in baseball, ice hockey, and rowing; and women’s 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 2020-21, UCLA men’s and women’s athletic programs placed 13th in the Directors Cup national all-around excellence survey; men placed in the top 10 three times and women seven times over the ten 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, Bill Walton, and Natalie Williams; and Olympians such as medalists Gail Devers, Ann Meyers Drysdale, Lisa Fernandez, Jackie Joyner-Kersee, Karch Kiraly, Dot Richardson, Peter Vidmar, and Natasha Watley.

Athletic Facilities

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

Intercollegiate Sports

UCLA Athletics is a member of the Pac-12 Conference.

Men’s teams have won an overall total of 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 in golf and gymnastics, and one 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 137 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 Academic 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 Admission and Scholarships.

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

When to Apply

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

Admission Notification

The UC Application Center sends e-mail notices to acknowledge receipt of applications. Subsequently, UCLA Undergraduate Admission notifies students of the admission decision. Fall-quarter freshman applicants are notified in late March; transfer applicants are notified in late April.

Students who are offered admission are asked to submit a Statement of Intent to Register and a Statement of Legal Residence. A nonrefundable deposit, also required at this time, is applied to the student services fee as long as students register in the term to which they are admitted.

Entrance Requirements

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

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

Admission as a Freshman

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

Minimum Admission Requirements

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

Subject Requirement

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

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

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

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

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

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

F. Visual and Performing Arts. One year-long visual and performing arts course selected from dance, drama/theater, music, visual art, or interdisciplinary arts
G. College Preparatory Electives. One year (two semesters), in addition to those required in A through F, or one year (two semesters) approved in the elective category

Subject Requirement Summary

- 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 submitted as part of an application may be used to determine eligibility for the California statewide admissions guarantee, as an alternative method of fulfilling minimum requirements for eligibility, or for course placement once admitted.

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

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

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

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

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

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

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

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

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

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

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

International Applicants

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

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

English Language Proficiency

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

Second Bachelor’s Degree

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

Registration

Registrar’s Office
1113 Murphy Hall

Registration consists of paying fees and enrolling in classes. Students enroll in UCLA, and in the College or one of the professional schools.

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

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

Fees and Payment

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

Electronic Billing

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

Annual Undergraduate Fees

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

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

Student Services Fee

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

Course Materials and Services Fees

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

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

**Instructional Enhancement Initiative Fee**

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

**Miscellaneous Fees**

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

**Student Health Insurance Fee**

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

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

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

**UCSHIP Waiver**

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

**Fees Notice**

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

**Fee Refunds**

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

**Fee Waiver Requests**

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

**Reduced Fee Programs**

UCLA recognizes the need for part-time study in special circumstances. Undergraduate resident students—when properly approved by the dean of their College/school for
enrollment in 10 or fewer units—may be eligible for a one-half reduction in tuition. The reduction is based on total units enrolled as of Friday of the third week of classes. Students should contact their College or school for eligibility requirements. Students must file a Fee Reduction Request with the academic dean’s office by Friday of the second week.

Except for these qualified and approved part-time students, there is no reduction in tuition, or in student services; Ackerman Student Union; Wooden Center; student programs, activities, and resources complex (SPARC); Undergraduate Students Association fees; or other campus-based fees. Undergraduate nonresident students pay only half the nonresident supplemental tuition fee.

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

Class Enrollment

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

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

Enrollment

Students enroll in classes through MyUCLA during assigned times—called enrollment appointments—when they are allowed to enroll. The Class Planner feature allows students to create class plans prior to enrollment, share plans with counselors, and quickly add classes during their enrollment appointment. Students use the Find a Class and Enroll feature to search the Schedule of Classes and add available classes to their class plan or study list.

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

For courses 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 student undergraduate scholarship application. Continuing scholars must also meet several enrollment and grade criteria.

Merit-Based Scholarships for Seniors

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

For more information, see Alumni Association scholarships.
ROTC Scholarships

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

Grants

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

Federal Pell Grants

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

Cal Grants A and B

California residents who attend at least half-time are eligible to apply for a California Student Aid Commission Cal Grant award. The FAFSA or California Dream Act Application and GPA Verification Form are the official applications for these programs. Cal Grant A awards assist low- and middle-income students with tuition and fee costs. Eligibility is based on need and grade-point average. Cal Grant B awards are intended to assist low-income and disadvantaged students with living expenses, books, supplies, and transportation costs. First-year awards may also cover registration fee costs. Renewal award recipients receive registration fee assistance. New awards are limited to students who have completed no more than one full-time semester or two full-time quarters or 16 semester units of part-time study or the equivalent. Students awarded Cal Grant B receive only the stipend portion of the award. Totals 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. UCLA makes every effort to assist students during the repayment of their obligation; but UCLA services, including registration and the release of official transcripts, are withheld if the loan becomes delinquent. Seriously delinquent accounts are referred to a professional collection agency for action.

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

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

William D. Ford Federal Direct Loan Program

Direct Loans

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

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

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

Direct PLUS Loans

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

Private Loans

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

Short-Term Loans

Students need not be receiving financial aid to apply for a short-term loan. They may borrow up to $200 for immediate emergency needs; the amount is repayable on the 20th of the month following the month in which the loan was made. To qualify, applicants must be registered UCLA students with satisfactory loan repayment records. Applications are available from the Loan Services Office, 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 137 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 program establishes its own learning outcomes, develops methods for assessment, and uses the results to enhance and improve student learning. Outcomes also help inform prospective and current students about a program’s purpose and value. See learning outcomes for more information.

Degree Requirements

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

University Requirements

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

Entry-Level Writing

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

- Score 30 or better on the ACT, English Language Arts, or 63 or better on the ACT, English Plus Reading
- Score 680 or better on the SAT, Evidenced-Based Reading and Writing
- Score 3, 4, or 5 on 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 Writing I placement on the University of California Analytical Writing Placement Examination (all freshmen from California high schools should have taken the examination during the month of May before they enrolled; others take an examination at UCLA early in their first term)

If students do not meet the requirement in one of the ways described above, Academic Senate regulations require them to enroll in a course determined by performance on the Analytical Writing Placement Examination as early as possible during their first year in residence. Each course must be taken for a letter grade and passed with a grade of C or better. Students receiving a final grade of C— or worse must repeat the course during their next term in residence.

The Entry-Level Writing requirement must be satisfied before enrolling in any course that satisfies the Writing I requirement (English Composition 3, 3D, 3DS, 3E, 3SL). For more information, see Entry-Level Writing.

English as a Second Language

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

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

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

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

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

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

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

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

Undergraduate Research

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

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

Undergraduate Research Fellows Program

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

Undergraduate Research Scholars Program

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

Academic Research Courses

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

Internships and Service Programs

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

Career Center

Internship and International Opportunities

The UCLA Career Center, located in the Strathmore Building, offers 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 Air Force, Army, Marine Corps, Navy, or Space Force while completing their college education. ROTC courses are offered by three departments within the College of Letters and Science: **Aerospace Studies** (Air Force and Space Force), **Military Science** (Army), and **Naval Science** (Navy and Marine Corps). Equipment, uniforms, and textbooks are supplied. The programs supply a monthly stipend to eligible students while on contract; and additional financial benefits, including tuition and fee scholarships, to qualified students. Individual programs are described in **Curricula and Courses**.

Teaching Opportunities

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

Education and Social Transformation Major

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

Education Studies Minor

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

General Chemistry Major

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

Mathematics Education Coursework

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

Math for LA

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

Two pathways are offered jointly with the School of Education and Information Studies. Each leads to a California Single Subject Teaching Credential in Mathematics. In the Integrated Pathway, students complete courses in education and mathematics during the junior and senior years to earn a California teaching credential upon graduation. In the Joint Math Education Pathway, students complete courses in education and mathematics during the senior year. They complete additional education courses the following summer to earn a California teaching credential. Over the following academic year, they complete graduate courses to earn a master’s degree in Education.

For more information, contact Julian Rojas, or visit The Curtis Center in 5602 Mathematical Sciences Building between 8 a.m. and 4 p.m. Mondays through Wednesdays.

Mathematics for Teaching Major

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

Mathematics for Teaching Minor

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

Science Education Minor

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

Science Teacher Education Program

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

Teacher Education Program

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

UCLA 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, politics, 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. General education credit is granted for most seminars, which are offered in winter and spring quarters only. Enrollment is limited.

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 Academic Programs

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

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

New Student Academic Programs also offers the College Summer Institute (CSI), a seven-week residential program in which new first-year students get a head start on graduation requirements through UCLA summer courses.

During the academic year, additional programs offer academic advising and support. For more information, contact the New Student Academic Programs office in 201 Covel Commons or through *Message Center*.

College and School Advisers

The College and each school 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 Center for Academic Advising in the College’s *undergraduate advising units* web page for a list of College and school advising office addresses. To contact a departmental adviser, see the individual department in *Curricula and Courses*; a list of department websites is available online.

Academic Advancement Program

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

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

**Center for Community College Partnerships**

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

**Graduate Mentoring 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, Assessment, and Evaluation**

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

**Research Rookies Program**

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

**Scholarships**

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

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

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

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

**Vice Provost Initiative for Precollege Scholars**
The initiative partnership between UCLA and the Los Angeles and Pasadena school districts prepares historically underrepresented students in 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. 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 3.80 (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, see the website, or 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. 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 over-

sees 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 in this chapter.

Supporting Materials

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

Graduate Record Examination

Applicants for admission to a department or school that requires Graduate Record Examination (GRE) scores should arrange to take the examination no later than December, so scores arrive on time. GRE scores should be sent directly to the prospective department and not to 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 training groups, called home areas, that serve as the admissions and training units associated with the degree-granting programs. Through this structure, students can specialize in their chosen area while maintaining the flexibility to move between home areas to best pursue their research interests.

Degree-Granting Programs and Home Areas

Consortium PhD programs offer the research home areas listed.

Bioinformatics
  - Bioinformatics
  - Medical Informatics

Human Genetics
  - Genetics and Genomics

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

Molecular, Cellular, and Integrative Physiology

Molecular and Medical Pharmacology
  - Molecular Pharmacology: Diagnostics, Therapeutics, and 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 a 7.5 overall band score on the IELTS examination, are exempt from the ESLPE requirement.

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

Teaching Assistantships

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.

Admission Policies

Duplicate Degrees
The University of California, in general, discourages the duplication of advanced degrees. At the same time, it recognizes that a professional degree does not duplicate an academic one, and that pressing needs may exist for degrees in different areas (see Graduate Articulated and Concurrent Degrees in Majors and Degrees). Students who apply for a second academic degree at the same level or lower than the one they already hold are required to show compelling cause to the department. The 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

Registration consists of paying fees and enrolling in classes. Students enroll in UCLA, and in the College or one of the professional schools.

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

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

Graduate students must be either registered and enrolled or on an official leave of absence every term until their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any academic term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.
Fees and Payment
Details on fee payment, enrollment procedures, and deadlines are published on the Registrar’s website registration fee payment section.

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

Annual Graduate Fees
Although the exact cost of attending UCLA varies by program, there are some fees that all UCLA students must pay. Each entering and readmitted student is required to submit a Statement of Legal Residence and Statement of Intent to Register to the 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 in Policies and Regulations.

Professional Degree Program Fees
Students admitted to professional degree programs must also pay professional degree supplemental tuition (PDST), which varies by program. PDST amounts are published on the Registrar’s annual and term fees web page.

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

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

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

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

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

Fee Refunds

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

Fee Deferrals

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

Reduced Fee Programs

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

In Absentia Registration

Graduate students who conduct research or engage in approved degree-program-related activities outside California may be eligible for in absentia registration, and reduction of tuition and the student services fee to 15 percent of the full amounts. See In Absentia Registration in Policies and Regulations for more information.

Reduced Units

UCLA recognizes the need for part-time study in special circumstances. When recommended by the department and properly approved by the Graduate Division dean for enrollment in 6 or fewer units, students may be eligible for a one-half reduction in tuition; and a one half-reduction in nonresident supplemental tuition and/or professional degree supplemental tuition, when applicable. Students in self-supporting degree programs are not eligible for fee reductions. For full part-time status eligibility criteria, see part-time enrollment on the Graduate Division website.

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

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

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

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

Filing Fee

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

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

Reduced Nonresident Supplemental Tuition

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

University Employees

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

Class Enrollment

Students enroll in classes through MyUCLA during assigned times—called enrollment appointments—when they are
allowed to enroll. The Class Planner feature allows students to create class plans prior to enrollment, share plans with counselors, and quickly add classes during their enrollment appointment. Students use the Find a Class and Enroll feature to search the Schedule of Classes and add available classes to their class plan or study list.

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

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

**Study List**

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

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

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

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

**Wait List**

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

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

**Full-Time Graduate Program**

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

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

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

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

**Continuous Registration Policy**

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

Registration in the Final Term

If students are completing courses; using faculty time, library facilities, laboratories, or other UCLA resources; or receiving UCLA funds, they are required to register in the final term in which they expect to receive their degree. When the award of a degree is expected at the end of a given term, but special circumstances (not involving preparation of the manuscript) over which a student has no control prevent the completion of all requirements before the first day of instruction in the next term, a student may petition for a waiver of registration for that term. Such petitions must be accompanied by a letter from the graduate faculty adviser or department chair elaborating the exceptional circumstances.

Immunization Requirements

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

Health Assessment and Evaluation

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

Financial Support

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

As a major center for graduate study, UCLA offers its qualified graduate students substantial support through several types of financial assistance. Information on available funding for entering (and re-entering) students is included in the online graduate admission application. Continuing graduate students should complete the online fellowship application. Completed fellowship applications must be returned to the home department by the published deadlines. Some departments have earlier deadlines; see 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 fellowship covers 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.
Policy and Regulations

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

Academic Policies

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

Academic Terms

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

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

Language of Instruction

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

Academic Credit

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

Units of Credit

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

Class Levels

Undergraduate Student

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

<table>
<thead>
<tr>
<th>Class Designation</th>
<th>Units Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman (UFR)</td>
<td>0–44.9</td>
</tr>
<tr>
<td>Sophomore (USO)</td>
<td>45–89.9</td>
</tr>
<tr>
<td>Junior (UJR)</td>
<td>90–134.9</td>
</tr>
<tr>
<td>Senior (USR)</td>
<td>135 or more</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>Class Designation</th>
<th>Units Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master (MA/MS) (GMT)</td>
<td>Master’s degree objective</td>
</tr>
<tr>
<td>Professional Master (GPM)</td>
<td>---</td>
</tr>
<tr>
<td>Doctorate 1 (GD1)</td>
<td>Not advanced to candidacy</td>
</tr>
<tr>
<td>Doctorate 2 (GD2)</td>
<td>Advanced to candidacy</td>
</tr>
<tr>
<td>Professional School (PF)</td>
<td>---</td>
</tr>
<tr>
<td>Professional School (PF2)</td>
<td>Second year (Law: 30-55.9)</td>
</tr>
<tr>
<td>Professional School (PF3)</td>
<td>Third year (Law: 56 or more)</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 Gradu-
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 department chair and the Registrar’s Office.

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

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

**Grades**

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

**Undergraduate Grades**

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

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

Grades A, B, C, and D may be modified by a plus (+) or minus (–) suffix. Grades A, B, C, and P denote satisfactory progress toward the degree. A grade of D may be applied toward graduate degrees unless otherwise prohibited by the program requirements. However, courses in which a grade of 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:

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<tr>
<th>GRADE POINTS</th>
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<tbody>
<tr>
<td>Grade</td>
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</tr>
<tr>
<td>A+</td>
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<tr>
<td>A</td>
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<td>A–</td>
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<td>C+</td>
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<td>C</td>
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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).

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 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

Withdrawal 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
Graduate Student Continuous Registration Policy

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

Graduate Leave of Absence

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

Federal policy governing students on F-1 and J-1 visas restricts leaves of absence to certain conditions. The Dashew Center for International Students and Scholars, in consultation with the 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 normally available to registered students. There is no need to apply for readmission, since the approved leave is for readmission to a specific term. The Registrar’s Office notifies students about registration for the returning term.

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

In Absentia Registration

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

Graduate Student Readmission

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

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

Transcripts and Records

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

Transcripts

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

Official UCLA paper transcripts are printed on security paper to safeguard against unauthorized duplication, alteration, 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 background 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 transcript and proof of enrollment—are designed to meet specific needs. Both can be ordered through MyUCLA, as can an unofficial (student copy) academic transcript.

**Academic Transcript**

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

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

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

**Proof of Enrollment**

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

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

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

**Third-Party Verifications**

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

**Ordering Transcripts**

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

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

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

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

**Fees and Payment**

Most academic transcripts and proofs of enrollment are available at no charge after payment of the document fee. A fee may be charged for some transcript-related services. For example, forms that must be completed by the Registrar’s Office and envelopes that require official signatures incur a special handling fee. Transcripts can be faxed for an additional fee. Faxed transcripts are generally not considered official, and confidentiality cannot be guaranteed. For exact fees, see transcript-related fees.

**Student Records**

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

See also regulations concerning disclosure of student records.
MyUCLA
Through MyUCLA, students can obtain academic, financial, and personal information from their UCLA academic records.

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

In the event an academic department or interdepartmental program chooses to conduct a program improvement research study, it may opt to use a sample of evidence that it has chosen to archive, and it may grant permission for the 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 identifiers of individual students attached to the records in the archive. Assessment of student performance in program improvement research studies is not connected with any academic record of the individual student’s performance. Assessment reports may be created for internal departmental improvement purposes only, and they may include an aggregation of student characteristics associated with learning achievement. Evidence of student learning is purged from the digital archive after being stored for a period of 12 years, to ensure it can be made available for analysis of departments and programs in support of the Academic Senate program review requirements. Students can designate that materials they created, which have been sampled by the faculty, be excluded from the Undergraduate 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 following degree policies.

Student Responsibility
It is students’ responsibility to keep informed of and to comply with the rules, regulations, and policies affecting their academic standing. Meeting academic deadlines, monitoring the study list for accuracy, completing requisites, 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 maintain this level may be placed on academic probation or may become subject to dismissal. The College and each school may set additional scholarship requirements.

Academic Probation
Students are placed on probation if their overall or term GPA falls between 1.5 and 1.99. While they are on probation, they may not take any course on a Passed/Not Passed (P/NP)
Progress toward the Degree
UCLA is a full-time institution, and it is expected that students complete their undergraduate degree requirements promptly. Normal progress toward graduation in four years is defined as the completion of 45 units per year, or 15 units per term.

Minimum Progress and Expected Cumulative Progress
The College and each school enforce minimum progress regulations. The College also enforces expected cumulative progress 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, 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

**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

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**

**Alcohol and Substance Policies**

UCLA is designated as a drug-free environment, and only under certain conditions is alcohol consumption permitted. In keeping with its educational mission, the University assumes the responsibility to better inform the UCLA community about alcohol and substance abuse.

The sale, manufacture, distribution, or possession of designated controlled substances without a prescription is illegal under both state and federal laws. Such laws are strictly enforced by UCPD police officers. Student violators are subject to University disciplinary action, criminal prosecution, fine, and imprisonment. Refer to the UCLA policies on substance abuse for further information.

The sale, consumption, and distribution of alcohol on the UCLA campus is restricted by the UCLA alcohol policy and California state law. Organizations or groups violating alcohol or substance policies or laws may be subject to sanctions by the University.

**Financial Aid Standards for Satisfactory Academic Progress**

UCLA Financial Aid and Scholarships establishes standards for satisfactory academic progress to measure students’ progress toward degree completion using both qualitative and quantitative methods in accordance with federal regulations. To be eligible for financial aid, students must meet or exceed these standards. Failure to maintain these standards may result in suspension of financial aid eligibility. The standards are as strict as, or more strict than, the UCLA standards for a student enrolled in the same educational program who is not receiving Title IV assistance. See the Standards for Satisfactory Academic Progress Guide (PDF).

**Professional Schools**

Students attending the schools of Dentistry, Law, Management, Medicine, and UCLA Extension are covered by criteria established by the respective school.

**Qualitative Standard**

Undergraduate students must maintain a cumulative 2.0 grade-point average (GPA); graduate students must maintain a cumulative 3.0 GPA.

**Quantitative Standard**

Students must complete a minimum of 67 percent of cumulative coursework attempted.

**Maximum Time Frame**

Units attempted or total enrolled terms may not exceed 150 percent of the published length of the student’s program.
Academic Major Change/Pursuit of Double Major or Minor

Students who change their academic major, or pursue a double major or minor, do not have additional financial aid eligibility beyond the maximum time frame established in this policy.

Successful Completion of Units

To successfully complete units, students must receive a grade of A, B, C, D, or P (S for graduate students) in each course. Grades of F, I, NP (U for graduate students), NR (No Report), and DR (Deferred Report) do not count as successful completion of coursework attempted.

The standards for satisfactory academic progress apply to all coursework attempted, including coursework for which students did not receive financial aid.

Cancellation of Registration

Cancellation of registration on or before the first day of classes does not count as units attempted.

English as a Second Language and Summer Sessions Coursework

English as a Second Language (ESL) and Summer Sessions coursework counts as units attempted, and toward the cumulative grade-point average.

Remedial Coursework

Remedial coursework counts as units attempted, but does not count toward the cumulative grade-point average.

Repeat Coursework

Repeated courses and grade-point average are treated in accordance with the academic policy as outlined in this Catalog. If the Registrar’s Office counts repeat coursework as attempted/completed, it counts equally for academic progress standards. Financial Aid and Scholarships determines if students are eligible for aid for repeat coursework.

Transfer Coursework

Coursework accepted for transfer credit counts as both units attempted and completed, and has no affect on grade-point average unless the coursework is transferred from another UC campus.

Withdrawal

Withdrawal after the first day of classes during a term counts as units attempted, unless students do not attend any classes for the given term and receive a 100 percent refund of all fees.

Evaluation

Academic progress is evaluated annually after winter quarter grades are available. For students on probation and students who are required to follow an academic plan, academic progress is evaluated each term.

Suspension

Students who fail to meet the standards for satisfactory academic progress are placed on suspension and are no longer eligible to receive financial aid. Suspended students are notified through their MyUCLA account.

Appeal Process

Students who have their financial aid suspended may submit a written appeal using the Satisfactory Academic Progress Appeal form. When filing an appeal, they must provide a full explanation along with documentation, verifying the circumstances that led to their inability to meet the standards for satisfactory academic progress. Before filing an appeal, students should seek assistance from an academic adviser.
to explore ways to eliminate deficiencies and to establish a realistic plan toward graduation. Refer to the appeal instruction packet for specific examples of valid reasons for an appeal.

**Appeal Deadline**

Appeals must be submitted to Financial Aid and Scholarships prior to the last day of the term for which students are appealing to have aid reinstated. Retroactive appeals are not considered. Refer to the appeal instruction packet for priority deadlines.

**Denied Appeals**

If the appeal is denied, students may file a secondary appeal and submit additional information that may help explain the circumstances by which they were not able to maintain the standards for satisfactory academic progress. They are notified of the decision of the secondary appeal in writing; the decision is final.

**Probation**

Students who have an appeal approved are placed on probation and their academic progress monitored on a quarterly basis to ensure that they meet the conditions of their academic plan.

**Reinstatement**

Students whose aid eligibility has been suspended for failing to maintain the standards for satisfactory academic progress, or whose satisfactory academic progress appeal has been denied, may regain financial aid eligibility by becoming compliant with the qualitative and quantitative components of the academic progress standards. Students who exceed the maximum time frame cannot regain eligibility through the reinstatement process.

**Academic Plans**

If students are required to submit an academic plan as a condition of their approved appeal, their financial aid cannot be disbursed until Financial Aid and Scholarships confirms that they are adhering to their academic plan. Students on an academic plan are evaluated each term. Their ability to adhere to the units and courses specified in their academic plan is closely monitored. Failure to adhere to their academic plan causes delays in students’ aid being disbursed, and may result in suspension of their financial aid eligibility.

**Residence for Tuition Purposes**

Students who have not been living in California with intent to make it their permanent home for more than one year immediately before the residence determination date for each term in which they propose to attend UCLA must pay nonresident supplemental tuition in addition to all other fees. The residence determination date is the day instruction begins at the last of the University of California campuses to open for the quarter; for schools on the semester system, it is the day instruction begins for the semester.

**Who Is a Resident**

Persons who are adult students (at least 18 years of age) may establish residence for tuition purposes in California if they are

1. a U.S. citizen
2. a permanent resident or other immigrant, or
3. a nonimmigrant who is not precluded from establishing a domicile in the U.S. Nonimmigrants who are not precluded from establishing a domicile in the U.S. include those who hold valid visas of the following types: A, E, G, H-1, H-4, Humanitarian Parole, I, K, L, N-8, N-9, NATO 1-7, O-1, P-1, P-2, P-3, R, T, U, or V

To establish residence in California, students and/or parents must be physically present in California for more than one year, and they must have come here with the intent to make California their home as opposed to coming to this state to go to school.

Graduate students can establish eligibility independently from their parents.

Undergraduate students under 24 years of age must prove their eligibility as well as their parents’ unless 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 duration period is extended until students and/or parents have demonstrated both presence and intent for one full year.

If their parents are not California residents (over one year of physical presence with intent to remain in the state), students are required to be financially independent in order to be a resident for tuition purposes. Their residence cannot be derived from their spouse, registered domestic partner, or their parents.
Requirements for Financial Independence

A student is considered financially independent if one or more of the following apply: the student

1. is at least 24 years of age by December 31 of the academic year for which they are requesting residence classification
2. is a veteran of the U.S. Armed Forces
3. is serving in the U.S. Armed Forces, including reserve components of these forces
4. is a ward of the court or a foster youth or both parents are deceased
5. has legal dependents other than a spouse
6. is married or has a registered domestic partner as of the residence determination date
7. has been determined to be an unaccompanied youth who was homeless pursuant to federal financial aid rules
8. receives an independent student status determined by UC campus financial aid office
9. is declared by a court to be an emancipated minor
10. is a graduate or professional student
11. is a single undergraduate student and was not claimed as an income tax deduction by their parents or any other individual for the one tax year immediately preceding the term for which they are requesting resident classification; and can demonstrate self-sufficiency for one full year prior to the residence determination date of the term they propose to attend the University, through their own resources (such as employment, commercial loans, financial aid, and savings that can be officially documented). The one year required for self-support might not coincide with the one tax year during which the student must not have been claimed by their parents.

Establishing Intent to Become a California Resident

Indications of student intent to make California their permanent residence can include the following:

1. registering to vote and voting in California elections
2. designating California as their permanent address on all school and employment records, including military records if they are in the U.S. Armed Forces
3. obtaining a California Driver License or, if they do not drive, a California Identification Card
4. obtaining California vehicle registration
5. paying California income taxes as a resident, including taxes on income earned outside California from the date they establish residence
6. establishing a California residence in which they keep their personal belongings
7. licensing for professional practice in California

Maintaining these indicia in other states during any period for which students claim residence can also serve as an indication of their intent. Documentary evidence is required, and all relevant indications are considered in determining the classification. Intent is questioned if students return to their prior state of residence when UCLA is not in session.

Temporary Absences

If persons are nonresident students who are in the process of establishing a residence for tuition purposes and they return to their former home during noninstructional periods, their presence in the state is presumed to be solely for educational purposes and only convincing evidence to the contrary rebuts this presumption. Students who are in the state solely for educational purposes are not classified as residents for tuition purposes regardless of the length of their stay.

If persons are students who have been classified as residents for tuition purposes and they leave the state temporarily, their absence could result in the loss of their California residence. The burden is on students (or their parents if they are minors) to verify that they did nothing inconsistent with their claim of a continuing California residence during their absence. Steps that students (or their parents) should take to retain a California residence include the following:

1. maintain a domicile in California
2. continue to use a California permanent address in all records—educational, employment, military, etc.
3. continue to satisfy California Resident tax obligations. If a student claims California residence, they are liable for payment of income taxes on their total income from the date they establish their residence in the state, including income earned in another state or country
4. retain California voter registration and vote by absentee ballot
5. maintain a California driver license and vehicle registration. If it is necessary to change the driver license or vehicle registration, the student must change them back within the time prescribed by law.
General Rules Applying to Minors
If students are unmarried minors (under age 18), the residence of the parent with whom they live is considered to be their residence. If they have a parent living, they cannot change their residence by their own act, by the appointment of a legal guardian, or by the relinquishment of their parent’s right of control. If students live with neither parent, their residence is that of the parent with whom they last lived. Unless they are minor aliens present in the U.S. under the terms of a nonimmigrant visa that precludes them from establishing a domicile in the U.S., students may establish their own residence when both their parents are deceased and a legal guardian has not been appointed. If they derive California residence from a parent, that parent must satisfy the one-year durational residence requirement.

Specific Rules Applying to Minors

Divorced or Separated Parents
Minor U.S. citizens or eligible aliens may be able to derive California resident status from a California resident parent, if they move to California to live with that parent before their 18th birthday. If they begin residing with their California parent after their 18th birthday, they are treated like any other adult student coming to California to establish residence.

Parent of Minor Moves from California
Students may be entitled to resident status if they are minor U.S. citizens or eligible aliens whose parent(s) was a resident of California who left the state within one year of the residence determination date if they
1. remained in California after their parent(s) departed
2. enroll in a California public postsecondary institution within one year of their parent(s) departure, and
3. once enrolled, maintain continuous attendance in that institution

Financial independence is not required in this case.

Two-Year Care and Control
A minor or 18-year-old student may be entitled to resident classification if, immediately prior to enrolling in a postsecondary institution, they have been living with and been under the continuous direct care and control of an adult or adults other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of 19 and have lived in the state the minimum time necessary to become a resident, so long as continuous full-time attendance is maintained at a public postsecondary institution.

Self Support
If students are U.S. citizens or eligible aliens and are minors who can prove that they lived in California for the entire year immediately before the residence determination date, that they have been self-supporting for that year, and that they intend to make California their permanent home, they may be eligible for resident status.

Exemptions from Nonresident Supplemental Tuition

Member of the U.S. Armed Forces
Some members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate and graduate students who are members of the U.S. Armed Forces on active duty for a period of more than 30 days, and whose domicile or permanent duty station is in California, are entitled to an exemption from nonresident supplemental tuition. Students must be continuously enrolled at the University, notwithstanding a subsequent change in their permanent duty station to a location outside of California.

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 unmarried dependent child, spouse, or registered domestic partner of a member of the University faculty who is a member of the Academic Senate, they may be eligible for a waiver of nonresident supplemental tuition resident classification. Confirmation of the faculty member’s membership in the Academic Senate must be secured each term this waiver is granted.

Child, Spouse, or Registered Domestic Partner of a UC Employee

Students may be entitled to resident classification if they are a dependent child, spouse, or registered domestic partner of a full-time University of California employee whose assignment is outside California. Their parent’s, spouse’s, or registered domestic partner’s employment status with the University must be ascertained each term.

Dependent Child of a California Resident

If students have not been an adult resident of California for more than one year and are the natural or adopted dependent child of a California resident who has been a resident for more than one year immediately prior to the residence determination date, they may be entitled to a resident classification until they have resided in California the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.

Native American Graduate of a Bureau of Indian Affairs High School

Students who are graduates of a California high school operated by the federal Bureau of Indian Affairs may be entitled to a resident classification.

Employee of a California Public School District

Students holding a valid credential authorizing service in the public schools of the State of California who are employed by a school district in a full-time certificate position may be entitled to a resident classification.

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 properlyremedying 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, 2255 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.

Student Conduct Policies

Students are members of both society and the academic community with attendant rights and responsibilities. Students are expected to make themselves aware of and comply with the law, and with University and campus policies and regulations. While many UCLA policies and regulations parallel federal, state, and local laws, UCLA standards may be set higher. The University of California Policies Applicable 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 for more information concerning these policies.

Jurisdiction

The University has jurisdiction over student conduct that occurs on University property, or in connection with official University programs or functions whether on or off University property. The University may, at its sole discretion, exercise jurisdiction over student behavior that occurs off campus and would violate student conduct when the alleged misconduct indicates that the student poses a
threat to the safety or security of any individual; or it involves academic work or the forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

In determining whether or not to exercise off-campus jurisdiction, the University may consider factors including but not limited to the seriousness of the alleged misconduct; whether an alleged victim is a member of the campus community; the ability of the University to gather information, including witness statements; and whether the off-campus conduct is part of a series of actions that occurred both on and off campus.

**Types of Misconduct**

Students may be held accountable for committing or attempting to commit a violation of the UCLA Student Conduct Code or for assisting, facilitating, or participating in the planning of an act that violates this Code (or an act that would be in violation of this Code if it were carried out by a student). Violations include the following types of misconduct:

**102.01: Academic Dishonesty.** All forms of academic misconduct, including but not limited to cheating, fabrication or falsification, plagiarism, multiple submissions, or facilitating academic misconduct. 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.

Unless otherwise specified by the faculty member, all submissions, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work) must either be the student's own work, or must clearly acknowledge the source.

**102.01d: Multiple Submissions.** Multiple submissions includes, but is not limited to, the submission for credit in a UCLA course of any work 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/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/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 repercussions or discipline against an instructor to coerce the instructor to change a grade or otherwise evaluate the student's work by criteria not directly reflective of coursework.

**102.01g: Unauthorized Collaboration.** Unauthorized collaboration includes working with others without the expressed permission of the instructor on any submission, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work). Collaboration between students will be considered unauthorized unless expressly permitted by the instructor.

**102.02: Other Forms of Dishonesty.** Other forms of dishonesty, including but not limited to fabricating information or knowingly furnishing false information or reporting a false emergency to the University.

**102.03: Forgery.** Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification, or submission of any forged document or record to the University.

**102.04: Theft, Damage, or Destruction of Property.**

**102.04a: Theft.** Theft includes taking without expressed permission or, misappropriation of any property or services of the University or property of others while on University
premises or at official University functions; or possession of any property that the student had knowledge or reasonably should have had knowledge was stolen.

102.04b: Damage or Destruction of Property. Damage or destruction of any University property or the property of others while on University premises or at official University functions.

102.05: Computer Misuse.

102.05a: Theft or Abuse of Computers. Theft or abuse of University computers or other University electronic resources such as computer and electronic communications facilities, systems, and services. Abuses include, but are not limited to, unauthorized entry, unauthorized review of personal information of others maintained on University electronic resources, use, transfer, or tampering with the communications of others; use of either software or physical devices to enroll in classes for yourself or on behalf of others using processes other than those specifically delineated by the UCLA Registrar’s Office; interference with the work of others or with the operation of computer or electronic communications facilities, systems, or services; or violation of the University of California Electronic Communications Policy (PDF) or of any other University acceptable or allowable use policies.

102.05b: Violations of Copyright. Violations of copyright laws, whether by theft, unauthorized sharing, or other misuse of copyrighted materials such as music, movies, software, photos, or text.

102.06: Unauthorized Use of University Resources or Name. Unauthorized entry to, possession of, receipt of, or use of any University services, equipment, resources, or properties, including the University’s name, insignia, or seal.

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 Vio-
ience 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 her 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 terrify, or acts in reckless disregard of the risk of terroring, 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.

Express 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 expects privacy. For example, in most cases the following are considered private locations: residential living quarters, bathrooms, locker rooms, and personal offices.

Private nonpublic conversations and/or meetings include any communication carried on in circumstances that reasonably indicate that any party wants the communication to be confined to the parties, but excludes a communication made in a public gathering, or in any other circumstance in which the parties to the communication may reasonably expect that the communication may be overheard or recorded.

These provisions do not extend to public events or discussions, nor to lawful official law or policy enforcement activities. These provisions may not be utilized to impinge on the lawful exercise of constitutionally protected rights of freedom of speech or assembly.

For incidents involving allegations of conduct prohibited by the UC Policy on Sexual Violence and Sexual Harassment (PDF) (including invasions of sexual privacy), the Title IX Office will review the matter pursuant to this Policy, any related appendixes, and any local procedures currently in effect. Where the Title IX Office determines that it does not have jurisdiction over an allegation, the Office of Student Conduct may review the incident(s) to determine if the Code applies.

Sexual Assault and Other Sexual Violence

UCLA does not tolerate sexual violence and responds to all reports of sexual violence in accordance with UCLA procedures and the UC Policy on Sexual Violence and Sexual Harassment (PDF). Sanctions for a student found responsible for committing sexual assault or other sexual violence may include dismissal from the University. See the Title IX policies and rights web page.

If a Person Has Been Sexually Assaulted

Those who believe that they are the victims of sexual assault can

1. **immediately call the police department.** If possible, call the UCLA Police Department at 310-825-1491 or 911 if necessary.

2. **get medical attention.** Campus police will provide transportation to the Rape Treatment Center at Santa Monica-UCLA Medical Center for medical treatment and evidence collection. A confidential counselor from the Rape Treatment Center will be available at that time, free of charge.

3. **report to Title IX.** Students have the right to report to the University, and can do that by contacting the Title IX Office by e-mail or by calling 310-206-3417. If the other person is a student or employee, the office can take administrative action, and explain those options. The Title IX Office also offers interim measures to prevent individuals from experiencing additional harm. Those measures can include, but are not limited to, academic accommodations, no-contact directives prohibiting contact, and housing transfers.

Utilize confidential campus and community support services

1. **contact a Campus Assault Resources and Education (CARE) advocate.** CARE Advocates are available to support and advocate for UCLA victims or survivors. They can discuss options and alternatives, help identify the most appropriate support services, and provide information about medical care, psychological counseling, academic assistance, legal options, how to file a police report, and how to file a complaint with the Title IX Office. CARE advocates are available to assist any member of the UCLA community regardless of where or when the assault occurred. For assistance,
contact CARE at 310-206-2465 or go to 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** by e-mail. Responsible employees include academic personnel, faculty members, and most other employees who are not defined as a confidential resource under the **SVSH Policy**.

Title IX prohibits sex discrimination, including sexual harassment and sexual violence, in any education program or activity receiving federal financial assistance. Inquiries regarding Title IX may be directed to the **Title IX Office** by e-mail, or at 2255 Murphy Hall, 310-206-3417; or the U.S. Department of Education **Office for Civil Rights**.

**Other Forms of Harassment**

The University strives to create an environment that fosters the values of mutual respect and tolerance and is free from discrimination based on race, ethnicity, sex, religion, sexual orientation, disability, age, and other personal characteristics. Certainly harassment, in its many forms, works against those values and often corrodes a person’s sense of worth and interferes with one’s ability to participate in University programs or activities. While the University is committed to the free exchange of ideas and the full protection of free expression, the University also recognizes that words can be used in such a way that they no longer express an idea, but rather injure and intimidate, thus undermining the ability of individuals to participate in the University community. The **University of California Policies Applying to Campus Activities, Organizations, and Students** (PDF) (hereafter referred to as **Policies**) presently prohibit a variety of conduct by students which, in certain contexts, may be regarded as harassment or intimidation.

For example, harassing expression which is accompanied by physical abuse, threats of violence, or conduct that threatens the health or safety of any person on University property or in connection with official University functions may subject an offending student to University discipline under the provisions of the **Policies**.

Similarly, harassing conduct, including symbolic expression, which also involves conduct resulting in damage to or destruction of any property of the University or property of others while on University premises may subject a student victim 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

Adriana Galván, PhD, Dean of Undergraduate Education
Miguel A. García-Garibay, PhD, Dean of Physical Sciences
Tracy L. Johnson, PhD, Dean of Life Sciences
Alexandra Minna Stern, PhD, Dean of Humanities
Abel Valenzuela, Jr., PhD, Dean of Social Sciences (Interim)

College of Letters and Science
2300 Murphy Hall
310-825-9009

UCLA is one of the world’s premier universities. At the core of UCLA research programs, graduate training, and undergraduate instruction is the College of Letters and Science. With over 28,340 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 hypertext. Studies of nearly 100 foreign languages create a gateway to civilizations that span the globe and five millennia of human history. Philosophers offer training in the fundamental principles of logic and moral reasoning, and linguists—both theoretical and applied—illuminate the physiological, cognitive, and social aspects of human language. Art historians explore with students the forms and media through which humans have sought to express themselves and to challenge and make sense of their worlds. Programs in the humanities teach students to interpret texts with an informed sensitivity, to evaluate ideas critically, to write clearly and effectively about them, and to be able to question and discuss them with their peers.

Life Sciences Division

Faculty members and students in the Life Sciences Division play an essential role in unlocking the basic mechanisms of life at the most fundamental level. The geography of Southern California is conducive to life sciences research, since the diverse region is a natural laboratory for environmental biologists, plant and animal ecologists, and evolutionary biologists. Scientists in microbiology and molecular, cell, and developmental biology study embryo formation, cell signaling, and genetics. Neurochemists, neurophysiologists, psychobiologists, and behavior biologists study the underlying mechanisms of the neural basis of behavior. Physiological scientists examine the structure of muscle, hormonal control of behavior, and environmental conditions, such as weightlessness, that affect bone and muscle structure and function. Cognitive psychologists are concerned with the nature of knowledge—how people learn, remember, associate, and think; and how computers relate to human thought processes.

Physical Sciences Division

Departments in the Physical Sciences Division present the results of human efforts to understand the natural sciences and their physical aspects, including the properties and characteristics of matter and energy; the science of numbers and order; the origin and structure of the universe, solar system, and Earth; and climatic change and its environmental impact. The bases for the physical sciences are the fundamental laws and proof of mathematics, chemistry, and physics. Studies in the physical sciences are experimental, theoretical, observational, and computational. Faculty members and students are interested in such topics as the nature and evolution of the galaxies; ozone depletion; nuclear winter; greenhouse effect; molecular recognition, interactions, design, synthesis, and structure; evolution of life and the continents; computational mathematics and
symbolic logic; superconducting materials; plasma fusion, space plasmas; and high-energy accelerator physics.

**Social Sciences Division**

Majors in the **Social Sciences Division** help students make sense of the rapidly changing world around them by giving them the tools and sensibilities to appreciate the complex interplay of individuals, environment, culture, and economy that makes up their social world. They study human and animal evolution, as well as the transformation of human societies from small groups to states. They explore and debate the meaning of cultural, ethnic, and racial identities in historical and contemporary settings. Some majors challenge students to analyze the role of labor, markets, and exchange, as well as the dynamics of political choices, participation, and institutions. Communication, from interpersonal conversation to mass media, and its impact on personal and political behavior are studied in different fields, while the impact of place and the natural environment are examined through geography. Underlying all of these topics is a drive to capture the elusive nature of human behaviors and relationships through direct observation and the questioning of prevailing theories. In addition, students learn exciting and diverse methods of social and environmental analysis, such as archaeology, linguistics, statistics, game theory, remote sensing and imagery, textual analysis, ethnography, geographic information systems, fieldwork, and ecology.

**Undergraduate Education Division**

The **Undergraduate Education Division** is a campuswide advocate for undergraduate education, promoting academic success for the diverse undergraduate population at UCLA and ensuring options for all students to engage in a challenging array of educational opportunities, from foundational general education courses to advanced research and capstone projects.

**Academic Advancement Program**

The **Academic Advancement Program** (AAP) is a multicultural, 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 Academic Programs

New Student Sessions are the first introduction to UCLA for new students. During the three-day, first-year student sessions—and the one-day transfer student sessions—a unique set of comprehensive and engaging programs is offered to make student transitions to UCLA great ones.

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 139 majors leading to bachelor’s, master’s, and doctorate degrees. In addition, the College offers 85 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>
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<tbody>
<tr>
<td>University Requirements</td>
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<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
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<td>2. American History and Institutions</td>
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<tr>
<td>College Requirements</td>
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<td>College Requirements</td>
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<tr>
<td>1. Unit</td>
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<td>2. Scholarship</td>
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<td>3. Academic Residence</td>
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<td>4. Writing Requirement</td>
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<td>Writing I</td>
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<td>Writing II</td>
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<td>5. Quantitative Reasoning</td>
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<td>6. Foreign Language</td>
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<td>7. Diversity</td>
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<td>8. General Education</td>
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<tr>
<td>Foundations of Arts and Humanities</td>
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<tr>
<td>Foundations of Society and Culture</td>
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<tr>
<td>Foundations of Scientific Inquiry</td>
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<td>Department Requirements</td>
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<tr>
<td>Department Requirements</td>
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<tr>
<td>1. Preparation for the Major</td>
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<tr>
<td>2. The Major</td>
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</tbody>
</table>

Courses that do not satisfy specific UC, 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
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).

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.

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**General Education Requirements**

<table>
<thead>
<tr>
<th>Area</th>
<th>Requirement</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><strong>Total</strong></td>
<td>15 units minimum</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><strong>Total</strong></td>
<td>15 units minimum</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</td>
<td>and carry laboratory credit. Other courses in the subgroups may be 4 units.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17 units minimum</td>
</tr>
</tbody>
</table>

**Total GE**                                      10 courses/47 units minimum

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**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.

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, C115, 116, Ethnomusicology 68A through 68Z, 91A through 91Z, 161A through 161Z, 168A through 168Z, Music 50, 60A through 61C, 160A through 161C, C185A through C186C, and World Arts and Cultures 114) may be applied toward the bachelor’s degree, whether taken at UCLA or another institution.

Physical Education
No more than 4 units in physical education activities courses may be applied toward the bachelor’s degree.

Physics Courses
Any two or more courses from Physics 1A, 1AH, 5A, and 6A are limited to a total of 6 units of credit.

ROTC Courses
For students contracted in the Aerospace Studies Department, 36 units of aerospace studies credit may be applied toward the requirements for the bachelor’s degree; for students contracted in the Military Science Department, 26 units of military science credit may be applied; for students contracted in the Naval Science Department, 26 units of naval science credit may be applied.

Statistics Courses
Credit is allowed for only one of Statistics 10, 12, 13, 15 (or former 10H, 11, or 14), and a maximum of 8 units for any combination of introductory statistics courses taken at UCLA and another institution.

Upper-Division Tutorials
No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 32; see specific restrictions under each course.

300- and 400-Level Courses
No more than 8 units in the 300 and 400 series of courses may be applied toward the bachelor’s degree. Credit is not granted for X300 and X400 courses taken at UCLA Extension.

Academic Advising Services
The College offers academic advising and counseling to help students develop and thrive, both personally and academically, through individual meetings with an adviser in their advising unit: Academic Advancement Program, College Academic Counseling, 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. Honors counselors are specially trained professionals with whom students collaborate for pre- and post-graduate planning; while Honors student affairs advisors assist students in navigating the various university processes, rules, and regulations.

Students are welcome to visit the Honors Programs office, A-311 Murphy Hall, or call 310-825-1553.

Student Athletics

College Academic Counselors in Athletics (CACIA) are assigned to work with UCLA NCAA varsity student-athletes. Each team is assigned a specific counselor. The role of each counselor is to provide academic advising in the areas of program planning, academic difficulty advising, petitioning degree requirements, and major selection. CACIA support students as they explore academic and personal goals, and aim to empower them to take ownership of their educational experience. CACIA are also trained to observe and counsel with NCAA regulations in mind.

College Academic Counselors in Athletics are located in Academic and Student Services (AS2) in Athletics in Suite 127 of the JD Morgan Center. Student-athletes can contact this office at (310) 825-8699 or by e-mail.

Honors

College undergraduate students who achieve scholastic distinction may qualify for the following honors and programs.

College Honors

The highest academic recognition the College confers on its undergraduate students is College Honors, which is awarded to graduating seniors who successfully complete the College Honors program and who have an overall University of California grade-point average of 3.5 or better. The program offers exceptional undergraduate students an opportunity to pursue individual excellence.

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.75 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.

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 3.881 or better) for cum laude, the top 10 percent (GPA of 3.947 or better) for magna cum laude, or the top five percent (GPA of 3.978 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
Steven M. Dubinett, MD, Interim 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.

Genetic Counseling MS
Human Genetics MS, PhD
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
Doctor of Medicine/Graduate Division health science major PhD
Doctor of Medicine/Master of Public Health

Concurrent Degree Programs
Doctor of Medicine/Master of Business Administration
Doctor of Medicine/Master of Public Policy

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 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

Bruce S. Dunn, PhD, Dean (Interim)

Henry Samueli School of Engineering and Applied Science
6426 Boelter Hall
310-825-2826

Founded in 1945, the UCLA Henry Samueli School of Engineering and Applied Science is committed to providing a rigorous hands-on engineering education to undergraduate and graduate students. Recognized internationally as a top-tier school in the field, UCLA Samueli is the birthplace of the Internet and has developed breakthrough technologies in aerospace systems, wireless communication, solar energy, clean water, and much more. As part of 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 and computer scientists must uphold high ethical standards in creating and managing technology, and is committed to mentoring students 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 science, computer science and engineering, electrical and computer engineering, electrical engineering, manufacturing 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 BS
- Engineering online MS
- Engineering – Aerospace online MS
- Engineering – Computer Networking online MS
- Engineering – Electrical online MS
- Engineering – Electronic Materials online MS
- Engineering – Integrated Circuits online MS
- Engineering – Manufacturing and Design online MS
- Engineering – Materials Science online MS
- Engineering – Mechanical online MS
- Engineering – Signal Processing and Communications online MS
- Engineering – Structural Materials online MS
- Engineering and Applied Science Graduate Certificate of Specialization
- Manufacturing Engineering MS
- Master of Engineering
- Materials Engineering BS
- Materials Science and Engineering MS, PhD
- Mechanical Engineering BS, MS, PhD

Concurrent Degree Program

Computer Science MS/Master of Business Administration
Undergraduate Minors

- Bioinformatics
- Data Science Engineering
- Environmental Engineering

Undergraduate Admission

Applicants for admission to the school must satisfy the UC admission requirements as outlined in 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 equivalent to Mechanical and Aerospace Engineering M20 or Civil and Environmental Engineering M20 at UCLA will delay time to graduation. Applicants to all other engineering majors may take any C++, C, Java, or MATLAB course to satisfy the admission requirement, but the MATLAB course equivalent to Mechanical and Aerospace Engineering M20 or Civil and Environmental Engineering M20 is preferred.

5. At least one general education (GE) course in the arts, humanities, or social sciences as required to be UC eligible.
Transfer students must also complete a course equivalent to English Composition 3 at UCLA and a second UC-transferable English composition course.

All lower-division requirements should be completed by the end of the spring term prior to anticipated enrollment at UCLA.

**Transfer Credit**

Students transferring to the school from institutions that offer instruction in engineering subjects in the first two years, particularly California community colleges, may be given credit for certain engineering core requirements. Many sophomore courses in circuit analysis, strength of materials, and properties of materials may satisfy Civil and Environmental Engineering 108, Electrical and Computer Engineering 100, and Materials Science and Engineering 104 requirements respectively. Students should check with the Office of Academic and Student Affairs, 6426 Boelter Hall.

**Undergraduate Degree Requirements**

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Science degree.

**University Requirements**

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

**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

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### Degree Requirements

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Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
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) 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 depart-
ment must be taken for a letter grade. See Curricula and Courses for details on each major.

Minors and Double Majors

Students in good academic standing may be permitted to have a minor or double major. The second major must be outside the school (e.g., Electrical Engineering major and Economics major). If approved, no more than 20 upper-division units may be shared by both majors. Students are not permitted to have a double major with two school majors (e.g., Chemical Engineering and Civil Engineering). Students may file an Undergraduate Request to Double Major or Add Minor form at the Office of Academic and Student Affairs. The school determines final approval of a minor or double major request; review is done on a case-by-case basis, and filing the request does not guarantee approval. Students interested in a minor or double major should meet with their counselor in 6426 Boelter Hall.

While minor and double major requests are considered, specializations are not considered.

Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking during a particular term. It is the student’s responsibility to present a study list that reflects satisfactory progress toward the degree. Study lists or programs of study that do not comply with the standards set by the faculty may result in enforced withdrawal from UCLA or other academic action. Study lists require approval of the dean of the school or a designated representative.

Undergraduate students in the school are expected to enroll in at least 12 units each term. Students enrolling in fewer than 12 units must obtain approval by petition to the dean before enrolling in classes. The normal program is 16 units per term. Students may not enroll in more than 21 units per term unless an Excess Unit Petition is approved in advance by the dean.

Minimum Progress

Full-time undergraduate students must complete a minimum of 36 units in three consecutive terms in which they are registered.

Concurrent Enrollment

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

Special concurrent enrollment programs with other UC campuses, and intersegmental enrollment programs with California State University (CSU) or California Community College (CCC) schools, are available to eligible students.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations

Some portions of Advanced Placement (AP) Examination credit are evaluated by corresponding UCLA course number. If students take the equivalent UCLA course, a deduction of UCLA unit credit is made prior to graduation. See the school AP table.

College Level Examination Program

Credit earned through the College Level Examination Program (CLEP) may not be applied toward the bachelor’s degree.

Community College/Lower Division Transfer Limitation

After completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year
To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units × 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units × .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 3.812 or better) for *cum laude*, the top 10 percent (GPA of 3.898 or better) for *magna cum laude*, and the top five percent (GPA of 3.943 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 3.812 GPA for *cum laude*, 3.898 for *magna cum laude*, and 3.943 for *summa cum laude* for all designations of honors, students must have a minimum 3.25 GPA in their major field upper-division courses. Upper-division courses that are not applied to a specific school BS degree requirement are excluded from these upper-division averages.

**Departmental Scholar Program**

Exceptionally promising juniors or seniors may be nominated as Departmental Scholars to pursue engineering bachelor’s and master’s degree programs simultaneously. Minimum qualifications include the completion of 24 courses (96 quarter units) at UCLA, or the equivalent at a similar institution; a minimum 3.7 grade-point average (GPA) in the major field upper-division courses; a minimum 3.7 cumulative GPA; and the requirements in preparation for the major. To obtain both the bachelor’s and master’s degrees, Departmental Scholars fulfill the requirements for each program. Students may not use any one course to fulfill requirements for both degrees.

For details, contact the Office of Academic and Student Affairs in 6426 Boelter Hall well in advance of application dates for admission to graduate standing.

**Exceptional Student Admissions Program**

There is an Exceptional Student Admissions Program (ESAP) for outstanding Samueli School undergraduates who wish to enter the school graduate program upon completion of the BS degree. ESAP is an alternative to the Departmental Scholar Program. In contrast to that program, an ESAP-admitted student would be an enrolled graduate student and would be eligible for consideration of graduate fellowships and teaching assistant positions if available.

**Special Programs**

**Extracurricular Activities**

Students are encouraged to participate in UCLA extracurricular activities, especially those relevant to engineering such as the student engineering society (Engineering Society, University of California), student publications, and programs of the technical and professional engineering societies in the Los Angeles area.

The student body takes an active part in shaping policies of the school through elected student representatives on the school Faculty Executive Committee.

**Women in Engineering**

Among UCLA engineering students, women make up approximately 30 percent of the undergraduate and 25 percent of the graduate enrollment. Today’s opportunities for women in engineering are excellent, as both employers and educators try to change the image of engineering as a males-only field. Women engineers are in great demand in all fields of engineering.

The Society of Women Engineers (SWE) is a not-for-profit educational and service organization that empowers underrepresented groups to succeed and advance in the field of engineering. Its objective is to promote diversity in engineering and provide professional, outreach, advocacy, and technical opportunities for its members. It hosts many flagship events including the Evening with Industry networking event, WOW That’s Engineering Day where girl scouts are taught about engineering on campus, Engineers for Professionals Inclusions Conference (EPIC) where a panel of industry speakers discuss ways to combat prejudice in the workplace, and QWER Hacks which is an LGBTQ+ friendly beginner hackathon. It also provides various technical workshops, mentorship programs, and socials to build a community.

**Continuing Education**

Continuing education in engineering is developed and administered by the UCLA Extension (UNEX) Engineering and Technology Department in close cooperation with Henry Samueli School of Engineering and Applied Science. The department offers evening classes, short courses, certificate programs, special events, and education and training at the workplace.
Graduate Study

Admission

In addition to meeting the requirements of the Graduate Division, applicants to graduate programs for some departments in the Samueli School of Engineering and Applied Science are required to take the General Test of the Graduate Record Examination (GRE). Specific information about the GRE may be obtained from the department of interest.

Students entering the PhD program are normally expected to have completed the requirements for the master’s degree with at least a 3.25 grade-point average and to have demonstrated creative ability. Check with the department of interest for specific GPA requirements. Usually the MS degree is required for admission to the PhD program. Exceptional students, however, may be admitted directly to the PhD program upon receiving their BS degree. In most cases, the applicant is expected to obtain their MS degree along the way.

For information on 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.

Master of Science in Engineering Online Degree

The Master of Science in Engineering online self-supporting degree program enables employed engineers and computer scientists to augment their technical education beyond the Bachelor of Science degree, and enhances their value to the technical organizations by which they are employed.

Master of Engineering Degree

The one-year Master of Engineering (MEng) is a self-supporting, professional degree designed to develop future engineering leaders. Tailored to those who wish to pursue technical management positions, the degree addresses the needs of both students and industry with high-tech skill set and management savvy. Students in the program develop technical mastery in emerging research areas, learning business and technology management skills while creating real-world projects with industry input.

Concurrent Degree Program

A concurrent degree program between the Henry Samueli School of Engineering and Applied Science and the Anderson Graduate School of Management allows students to earn two master’s degrees simultaneously: the MBA and the MS in Computer Science. Students should contact the Office of Academic and Student Affairs for details.

PhD Degrees

The PhD programs prepare students for advanced study and research in the major areas of engineering and computer science. All candidates must fulfill the minimum requirements of the 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 data sciences; biomedical devices and instrumentation; biomedical image processing (biomedical imaging hardware development and biomedical signal and image processing; molecular, cellular, and tissue engineering; neuroengineering

Chemical and Biomolecular Engineering Department
Chemical engineering

Civil and Environmental Engineering Department
Civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structures (structural mechanics and earthquake engineering), transportation engineering

Computer Science Department
Artificial intelligence, computational systems biology, computer networks, computer science theory, computer system architecture, data science computing, graphics and vision, software systems

Electrical and Computer Engineering Department
Circuits and embedded systems, physical and wave electronics, signals and systems

Materials Science and Engineering Department
Ceramics and ceramic processing, electronic and optical materials, structural materials

Mechanical and Aerospace Engineering Department
Applied mathematics (established minor field only); design, robotics, and manufacturing; fluid mechanics; micro-nano engineering; structural and solid mechanics; systems and control; thermal science and engineering
Graduate Certificate of Specialization

The school offers a Certificate of Specialization in all areas, except computer science. Requirements for admission are the same as for the MS degree.

Each graduate certificate program consists of five 100- or 200-series courses, at least two of which must be at the graduate level. No work completed for any previously awarded degree or credential may be applied toward the certificate. Successful completion of a certificate program requires an overall minimum 3.0 (B) grade-point average in all courses applicable to the certificate. In addition, graduate certificate candidates are required to maintain a minimum 3.0 (B) grade-point average in 200-series courses used in the program. A minimum of three terms of academic residence is required. The time limitation for completing the requirements of a certificate program is two calendar years. Details about certificate programs may be obtained from each department office.

Courses completed in the school for a Certificate of Specialization may subsequently be applied toward master’s and/or doctorate degrees.

Graduate Degree Requirements

Graduate degree information is updated annually in program requirements for UCLA graduate degrees.

Lower-division courses may not be applied toward graduate degrees. In addition, most departments do not allow courses that are required for a BS degree in engineering to count toward a graduate degree. Consult the departmental graduate affairs office for more information.

Individual departments may impose certain restrictions on the applicability of other undergraduate courses toward graduate degrees. Consult with the graduate adviser on departmental requirements and restrictions.

Major Fields or Subdisciplines

The MS program focuses on one major field. The major fields and subdisciplines offered at the MS level in most cases parallel those listed for the PhD program. There are some differences (for example, manufacturing engineering in the Department of Mechanical and Aerospace Engineering is offered only at the MS level). Students should contact the specific department regarding possible differences between the MS and PhD fields and subdisciplines. Students are free to propose to the school any other field of study, with the support of their adviser.

Course Requirements

A total of nine courses is required for an MS degree, including a minimum of five graduate courses. (Some fields require more than five; obtain specific information from the department of interest.) A majority of the total formal course requirement and of the graduate course requirement must consist of school courses. In the thesis plan, seven of the nine courses must be formal courses, including at least four from the 200 series. The remaining two courses may be 598 courses involving work on the thesis. In the comprehensive examination plan, at least five of the nine courses must be in the 200 series; the remaining four courses may be either 200-series graduate or upper-division undergraduate courses. No 500-series courses may be applied toward the comprehensive examination plan requirements.

Thesis Plan

The thesis must either describe some original piece of research that students have done, usually but not 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 four undergraduate minors. The Musicology minor offers undergraduates an overview of music history and the study of music. Students may select from a wide variety of undergraduate courses that range through the history of European and American music. The Music Industry minor introduces students to critical perspectives on the formative effects the music industry and music technology have on musical practices around the world. The Ethnomusicology minor gives students who are interested in the culture of music a unique opportunity to participate in a hands-on educational experience. Students perform in ensembles, explore the world’s instruments, and study global traditions. The Iranian Music minor introduces students to the rich variety of musical expressions in Iran and the Iranian diaspora by combining hands-on musical experiences with academic study. Students take advantage of three ensembles to study the performative, improvisatory, and experimental aspects of Iranian traditional and popular music.

Information regarding academic programs is available from the Office of Student Affairs, 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
- Master of Music
- 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
- Iranian Music
- Music Industry
- Musicology

Undergraduate Admission

In addition to the UC undergraduate application, some departments require auditions, interviews, portfolios, or evidence of creativity. Information regarding departmental requirements is available on each department website; see the school undergraduate admission web page. After the UC application has been submitted, applicants need to submit supplemental application material and should consult the individual department website for details.
Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Arts and Bachelor of Music degrees.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate:

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.

### 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

**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.

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>
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</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 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>
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<tr>
<td><strong>Total GE</strong> ..................................... 8 courses/38 units minimum</td>
</tr>
<tr>
<td>A Writing II course also approved for general education may be applied toward the relevant general education foundational area.</td>
</tr>
</tbody>
</table>

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, labora-
tory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists**
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

**Reciprocity with Other UC Campuses**
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the Herb Alpert School of Music GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to UCLA Herb Alpert School of Music, Office of Student Affairs, Box 957234, Los Angeles, CA 90095-7234.

**Intersegmental General Education Transfer Curriculum**
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the Herb Alpert School of Music GE requirements.

**Department Requirements**
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

**Preparation for the Major**
A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see Curricula and Courses.

**The Major**
A major is composed of at least 36 units.
Students must complete their major with a grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

**Minors and Double Majors**
Students may petition for a minor and/or double major on an individual basis. Students should contact the Office of Student Affairs for an outline of criteria required for the petition.

**Policies and Regulations**
Degree requirements are subject to policies and regulations, including the following:

**Student Responsibility**
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

**Study List**
Each term the study list must include from 12 to 20 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 20 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) average in the preceding two terms with all courses passed. Students should contact the Office of Student Affairs no later than the end of the second week of instruction to petition for more than 20 units.

**Minimum Progress**
Students are expected to complete satisfactorily at least 40 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to disqualification if they fail to pass at least 32 units in three consecutive regular terms in residence.
Changing a Major

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and normal time to degree (12 terms for students who entered as freshmen; six terms for students who entered as transfers). Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Concurrent Enrollment

Enrollment at a non-UC institution or at UCLA Extension while enrolled at UCLA is not permitted.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations
Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with a counselor in the Office of Student Affairs to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., French 4). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Graduate Courses
Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and dean of the school, and must meet specific qualifications. Courses numbered in the 400 and 500 series may not be applied toward the degree.

Counseling Services
The school offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Office of Student Affairs, 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 3.907 or better) for *cum laude*, the top 10 percent (GPA of 3.956 or better) for *magna cum laude*, or the top five percent (GPA of 3.989 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 27-month 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
- Executive Master of Business Administration
- Fully Employed Master of Business Administration
- Global Executive Master of Business Administration for Asia Pacific GEMBA—dual degree program with National University of Singapore
- Business Analytics MS
- Management MS, CPhil, PhD
- Master of Financial Engineering

Concurrent Degree Programs
- Master of Business Administration/Computer Science MS
- Master of Business Administration/Doctor of Dental Surgery
Jonathan and Karin Fielding School of Public Health

Ronald S. Brookmeyer, PhD, Dean

Fielding School of Public Health
16-035 Center for Health Sciences
310-825-5524

Student Services e-mail

The UCLA Jonathan and Karin Fielding School of Public Health is home to one of the brightest and most diverse public health student bodies in the U.S., with over 600 students hailing from 26 countries. The Fielding School of Public Health has five academic departments—Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Policy and Management—and offers the Doctor of Philosophy, Master of Healthcare Administration, Master of Public Health, and Master of Science degrees. Additionally, concurrent and articulated degree programs and certificates enable students to gain specialized knowledge in areas such as global health, population and reproductive health, environmental health, and health care management and leadership. Students also have access to a wide range of local and global hands-on training opportunities that provide the skills needed to move public health evidence to action. The mission of the Fielding School of Public Health is to enhance the public’s health by training future leaders and health professionals from diverse backgrounds, conducting innovative research, translating research into policy and practice, and serving local communities and those of the nation and the world.

The Fielding School of Public Health is among the top ten public health schools in the country, and offers superior public health training and real-world experience. School classrooms and laboratories are located in the Center for Health Sciences (CHS) shared with the Geffen School of Medicine and the David Geffen School of Medicine at UCLA.

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.
Medicine, School of Dentistry, and School of Nursing, and just steps away from its science facilities and schools of engineering, law, management, and public affairs.

Los Angeles is a unique setting to address public health challenges confronting the global community. Los Angeles County has the largest population of any county in the U.S., and is one of the most populous metropolitan areas in the world. Its nearly 10 million residents represent more than 140 cultures and speak an estimated 224 languages.

Students at the Fielding School of Public Health learn from and collaborate with around 200 faculty members who are renowned leaders, experts and innovators in our community and at the state, national, and international level. The faculty not only teach tomorrow’s public health practitioners and educators, but they create new knowledge in the field, contribute their expertise to legislators and public health leaders, prevent disease, and create programs that save millions of lives worldwide.

**Departments**

The school offers graduate programs leading to both academic and professional degrees in five departments. The Department of Biostatistics develops statistical and analytical techniques for public health use. The Department of Community Health Sciences addresses behaviors that prevent disease and enhance health; health problems of high-risk groups (women, children, the aged, the poor, the disadvantaged, and racial and ethnic minorities); health education and promotion; public health policy; community nutrition; and international health. The Department of Environmental Health Sciences elucidates health hazards in the general environment and in the workplace. The Department of Epidemiology is concerned with the nature, extent, and distribution of disease and health in populations. The Department of Health Policy and Management deals with the organization, financing, delivery, quality, and distribution of health care services. The school also administers an interdepartmental degree program in molecular toxicology.

See **Curricula and Courses** for more information on each department.

**Degrees and Programs**

The Fielding School of Public Health offers the following degrees and undergraduate minor:

- Biostatistics MPH, MS, PhD
- Community Health Sciences MPH, MS, PhD
- Environmental Health Sciences MPH, MS, PhD
- Epidemiology MPH, MS, PhD
- Executive Master of Public Health
- Health Management MPH
- Health Policy MPH
- Health Policy and Management MS, PhD
- Master of Healthcare Administration
- Master of Public Health
- Master of Public Health for Health Professionals
- Molecular Toxicology PhD

**Articulated Degree Programs**

- Master of Public Health/Doctor of Medicine
- Master of Public Health/Latin American Studies MA

**Concurrent Degree Programs**

- Community Health Sciences MPH/Master of Urban and Regional Planning
- Environmental Health Sciences MPH/Master of Urban and Regional Planning
- Master of Public Health/African Studies MA
- Master of Public Health/Asian American Studies MA
- Master of Public Health/Juris Doctor
- Master of Public Health/Master of Business Administration
- Master of Public Health/Master of Public Policy
- Master of Public Health/Master of Social Welfare

**Undergraduate Minor**

- Public Health

**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. internationally. It conducts rigorous peer-reviewed research in two major program areas—the Healthy and At-Risk Populations Program and the Patients and Survivors Program.

The Healthy and At-Risk Populations Program focuses on research in primary prevention and screening/early detection among healthy populations and persons at increased risk for developing cancer. Its research portfolio includes cancer epidemiology; gene-environment interaction; tobacco control; nutrition and exercise; and breast, cervix, prostate, and colon cancer screenings; as well as risk counseling and genetic testing of high-risk populations. The Patients and Survivors Program has as its major goal the reduction in avoidable morbidity and mortality among adult and pediatric patients with cancer and long-term survivors of cancer.

Center for 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 workforce. 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 workforce.

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 effectual ways to reach members of this historically marginalized population and how to serve them holistically through all social determinants of health and justice.

Center for Occupational and Environmental Health

The California State Legislature mandated that the Center for Occupational and Environmental Health (COEH) be formed in 1978, when a group of chemical workers became sterile from exposure to the pesticide DBCP, a known carcinogen and reproductive toxin. With branches in northern and southern California, COEH trains occupational and environmental health professionals and scientists, conducts research, and offers services through consultation, education, and outreach. The centers constitute the first state-supported institutions to develop new occupational and environmental health leadership in the U.S.

The UCLA COEH branch is housed in the Center for Health Sciences and involves the schools of Public Health, Medicine, and Nursing. Specific COEH programs within the Fielding School include environmental chemistry, occupational/environmental epidemiology, occupational/environmental medicine, occupational ergonomics, occupational hygiene, toxicology, gene-environment interactions, psychosocial factors in the work environment, occupational health education, and pollution prevention.

Center for Public Health and Disasters

The Center for Public Health and Disasters was established in 1997 to address critical issues faced when a disaster impacts a community. The center promotes interdisciplinary efforts to reduce the health impacts of domestic, international, natural, and human-induced disasters. It facilitates dialog between public health and medicine, engineering, physical and social sciences, and emergency management. This unique philosophy is applied to the education and training of practitioners and researchers, collaborative interdisciplinary research, and service to the community. The multidisciplinary center staff and participating faculty members have backgrounds that include emergency medicine, environmental health sciences, epidemiology, gerontology, health services, social work, sociology, urban planning, and public health.

The center is one of 15 Academic Centers for Public Health Preparedness funded by the Centers for Disease Control and Prevention. The goal of these national centers is to improve competencies of front-line workers in public health to respond to public health threats.

Center for the Study of Racism, Social Justice, and Health

The Center for the Study of Racism, Social Justice, and Health is a multidisciplinary, collaborative research center housed in the Community Health Sciences Department leading the nation in conducting rigorous, community-engaged research to identify, investigate, and explain how racism and other social inequalities may influence the health of diverse local, national, and global populations.

The center is distinguished from other disparities-related research units at UCLA by its primary focus on the health implications of racism for diverse populations. Public health is both an academic discipline and an applied one. Therefore, the center encourages the translation of research findings for use by public health professionals, community organizations, and policy makers in their ongoing health equity efforts. Many center affiliates are working to identify, investigate, and explain the specific mechanisms by which various forms of racism may produce local, national, or global health inequities. Others are advancing critical racial theories or building community partnerships to guide their
anti-racism, health-equity work. The center supports a community of scholars engaged in cutting-edge research, scholarship, public health practice, and community engagement to tackle questions such as how racism affects the physical and mental health of diverse populations, what tools are available to improve the rigor with which researchers study racism and its relationship to health inequities, which intervention strategies most effectively address contribution of racism to specific health inequities, and what are effective ways to teach public health students about racism. Affiliates represent disciplines of public health, history, medicine, urban planning, sociology, and other areas.

**Southern California NIOSH Education and Research Center**

The purposes of the Region IX Southern California NIOSH Education and Research Center are to educate professionals in the various disciplines of occupational health and safety; offer continuing education for professionals and others in occupational safety and health fields; proliferate occupational health and safety activity through outreach to regional institutions and organizations; foster research on issues important to occupational health and safety; be an occupational health and safety resource to organizations and agencies that need its expertise; facilitate marshaling of community resources to address and solve occupational health and safety problems; respond through educational programs and research to the changing range of occupational safety and health problems; and educate nontabular 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 non-governmental sectors. The undergraduate major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. Faculty members are actively engaged in research that addresses pressing national and regional issues including immigration, drug policy, prison reform, health care financing, transportation and the environment, national security, economic development, and the aging U.S. and world population.

Departments

The school comprises three academic departments—Public Policy, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and nongovernment service; conducts research on significant regional, national, and international issues with a strong interdisciplinary and cross-cultural focus; and acts as a convener and catalyst for public dialog that engages people locally, nationally, and internationally.

Degrees and Programs

The Luskin School of Public Affairs offers the following degrees and undergraduate minors:

- Master of Public Policy
- Master of Social Welfare
- Master of Urban and Regional Planning
- Public Affairs BA
- Social Welfare PhD
- Urban Planning PhD

Concurrent Degree Programs

- Master of Public Policy/Doctor of Medicine
- Master of Public Policy/Juris Doctor
- Master of Public Policy/Master of Business Administration
- Master of Public Policy/Master of Public Health
- Master of Public Policy/Master of Social Welfare
- Master of Social Welfare /Asian American Studies MA
- Master of Social Welfare /Juris Doctor
- Master of Social Welfare /Master of Public Health
- Master of Urban and Regional Planning/Juris Doctor
- Master of Urban and Regional Planning/Latin American Studies MA
- Master of Urban and Regional Planning/Master of Architecture
- Master of Urban and Regional Planning/Master of Business Administration
- Master of Urban and Regional Planning/Master of Public Health

Undergraduate Minors

- Gerontology
- Public Affairs
- Urban and Regional Studies

Obtain brochures about the school undergraduate programs from the department office, 3343 Public Affairs Building, or see school minors.

The school also offers a wide array of undergraduate courses in public affairs. Enrollment in these courses is open to all undergraduate students during the second enrollment pass. Most classes are restricted to students pursuing the BA in Public Affairs during the first pass.
Undergraduate Admission

Admission as a Freshman

Freshmen are admitted with a declared pre-major in the College of Letters and Science. See Public Affairs BA in Curriculum and Courses for information on applying to the major.

Admission as a Junior

Transfer students are admitted directly to the Luskin School of Public Affairs.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in Undergraduate Study for details.

School Requirements

There are eight requirements that must be satisfied for the award of the degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

After 216 quarter units, enrollment may not normally be continued in the school without special permission from the dean.

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 Span-
ish, 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.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. Courses used to satisfy the diversity requirement are approved by the school Faculty Executive Committee. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (47 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

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

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.

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 3.901 or better) for cum laude, the top 10 percent (GPA of 3.929 or better) for magna cum laude, or the top five percent (GPA of 3.966 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-
porary 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 MA, PhD
- Architecture and Urban Design MS
- Art BA, MFA
- Choreographic Inquiry MFA
- Culture and Performance MA, PhD
- Dance BA
- Design|Media Arts BA, MFA
- Individual Field BA
- Master of Architecture
- World Arts and Cultures BA

Undergraduate Minor

Visual and Performing Arts Education

Undergraduate Admission

In addition to the UC undergraduate application, departments require a supplemental application that involves auditions, portfolios, or evidence of creativity. Information about departmental requirements is available on the school prospective students web page.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements

There are nine requirements that must be satisfied for award of a degree.

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.
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

Scholarship Requirement

A 2.0 (C) average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of the Arts and Architecture. Of the last 45 units completed for the 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.
Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; for languages other than Spanish and Portuguese, presenting a UCLA foreign language proficiency examination score indicating competency through level two; or completing one college-level foreign language course equivalent to level two or above at UCLA with a grade of Passed or C or better. Students who want to meet the foreign language requirement with Spanish, and do not have a qualifying AP score, must enroll in Spanish 2. Students who want to meet the foreign language requirement with Portuguese, and do not have a qualifying AP score, must enroll in Portuguese 2. The foreign language requirement must be completed within the first six terms of enrollment.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page and are available on the student Degree Audit.

Upper-Division Nonmajor Requirement

Students are required to complete a minimum of 12 units of upper-division (100-level) nonmajor courses. Graduate (200-, 400-, and 500-level) courses may not be applied toward this requirement.

Diversity Requirement

The diversity requirement is predicated on the notion that students in the arts must be trained to understand the local, national, and global realities in which they make, understand, interpret, and teach the arts. Those realities include the multicultural, transnational, and global nature of contemporary society. The requirement may be satisfied by taking courses in any of three parts of the student’s overall program: general education courses, courses in the major, or upper-division nonmajor elective courses. As such, students are not required to complete an additional course to satisfy the diversity requirement. Courses satisfying this requirement consider intergroup dynamics along with such social dimensions as race, ethnicity, gender, socioeconomic background, religion, sexual orientation, age, and disability; and are relevant to the understanding of these dynamics in contemporary society and culture in the U.S. and around the world.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Eight courses (38 units minimum) are required. A Writing II or diversity course also approved for general education may be applied toward the relevant general education foundational area.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement and complete nearly 50 percent of their general education requirements. Students who do not complete the year-long GE cluster series must meet with an adviser in the Student Services Office to determine applicable GE credit.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:
• Literary and Cultural Analysis
• Philosophical and Linguistic Analysis
• Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture**
Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- **Historical Analysis**
- **Social Analysis**

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry**
Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments:

- **Life Sciences**
- **Physical Sciences**

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
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<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
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<tr>
<td>Literary and Cultural Analysis...............1 course</td>
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<tr>
<td>Philosophical and Linguistic Analysis ........1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
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<tr>
<td><strong>Foundations of Society and Culture</strong></td>
</tr>
<tr>
<td>Historical Analysis .........................1 course</td>
</tr>
<tr>
<td>Social Analysis ................................1 course</td>
</tr>
<tr>
<td>Third course from either subgroup ..........1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
</tr>
<tr>
<td>Life Sciences/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 ...................... 8 courses/38 units minimum</strong></td>
</tr>
</tbody>
</table>

A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

**Foundations Course Lists**
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic adviser in the Office of Student Services, 2200 Broad Art Center, or see the master list.

**Reciprocity with Other UC Campuses**
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the School of the Arts and Architecture GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to the UCLA School of the Arts and Architecture, Office of Student Services, Box 951620, Los Angeles, CA 90095-1620.

**Intersegmental General Education Transfer Curriculum**
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admis-
sion 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 3.894 or better) for cum laude, the top 10 percent (GPA of 3.938 or better) for magna cum laude, or the top five percent (GPA of 3.968 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.

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**School of Dentistry**

Paul H. Krebsbach, DDS, PhD, Dean

School of Dentistry
53-038 Dentistry
310-206-6063

The UCLA School of Dentistry has a national and international reputation for its teaching, research activities, and public service that prepare dental students for professional careers dedicated to patient care, leadership, and service. The curriculum prepares students for changes in treatment modalities and health care delivery systems. From the moment training begins, students actively participate in preventive and clinical dental care and soon make valuable contributions to the clinical health team. Clinical instruction emphasizes the comprehensive care of patients. Students interact with their colleagues, faculty members, and dental auxiliary personnel in much the same way as they later will interact in a private or group practice.

Students may undertake programs designed to meet their special interests; mandatory selectives encourage advanced training in an area of particular interest and service learning. In addition to basic and applied research programs within the school, students participate in community service programs such as the Wilson-Jennings-Bloomfield UCLA Venice Dental Center. Graduate programs and resident specialty programs foster new lines of research that lead to better treatment options. An active continuing education program, directed by UCLA faculty members, offers a variety of hands-on courses for members of the dental profession and their auxiliaries.

**Degrees and Programs**

The School of Dentistry offers the following degrees:

- Doctor of Dental Surgery
- Oral Biology MS, PhD

**Articulated Degree Programs**

- Oral Biology MS/Dentistry Certificate
- Oral Biology MS/Doctor of Dental Surgery
- Oral Biology PhD/Dentistry Certificate
- Oral Biology PhD/Doctor of Dental Surgery

**Concurrent Degree Programs**

- Doctor of Dental Surgery/Master of Business Administration

In addition, the school has a Professional Program for International Dentists (PPID) and a number of dental specialty residency programs. For information on the MS and PhD programs in Oral Biology, for which admission to the School of Dentistry is not required, see program requirements for UCLA graduate degrees.
Pre-Dental Programs
For details on pre-dental programs, see the school website.

DDS Degree
The UCLA dental curriculum leading to the degree of Doctor of Dental Surgery (DDS) is based on the quarter system. The course of study usually takes four academic years of approximately nine months each, with three required summer quarters between the first/second, second/third, and third/fourth years. The curriculum is designed to give students experience in all phases of clinical dentistry.

The dental curriculum consists of three principal areas: basic health sciences courses, didactic dental courses, and clinical experience. The first two years of the curriculum are chiefly devoted to didactic, laboratory, and general clinical coursework. The final two years emphasize training and instruction in clinical fields, including endodontics, fixed prosthodontics, operative dentistry, oral diagnosis and treatment planning, oral radiology, oral and maxillofacial surgery, anesthesiology, orthodontics, pediatric dentistry, periodontics, and removable prosthodontics.

Postgraduate Programs
Opportunities for postgraduate study include a one-year general practice residency program; a one-year advanced education in general dentistry program; a one-year residency in maxillofacial prosthodontics; a six-year oral and maxillofacial surgery residency training program; three-year prosthodontics, periodontics, orthodontics, and dental 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, transformative coaches, and superintendents are prepared in the various professional master’s and doctorate degree programs. The UCLA Lab School (Corinne A. Seeds campus) and the UCLA Community School offer innovative educational programs for pre-K-6 and K-12 students, respectively. The Horace Mann UCLA Community School brings together resources to help young people thrive in the South Los Angeles area.

Degrees
The School of Education and Information Studies offers the following degrees and undergraduate minor:

Doctor of Education
Education MA, PhD
Educational Administration Joint EdD with UC Irvine
Education and Social Transformation BA
Information Studies PhD
Master of Education

Master of Library and Information Science, accredited by American Library Association
Special Education Joint PhD with California State University, Los Angeles
Articulated Degree Programs
- Master of Education/Latin American Studies MA
- Master of Library and Information Science/Latin American Studies MA

Concurrent Degree Programs
- Doctor of Education/Juris Doctor
- Education MA/Juris Doctor
- Education PhD/Juris Doctor
- Master of Education/Juris Doctor
- Master of Library and Information Science/Master of Business Administration

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

Undergraduate Minor
- Education Studies
- Information and Media Literacy

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.

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

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

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) taken at another institution.

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 competency through level three; or completing a college-level foreign language course equivalent to level three or above at UCLA with a C or better grade.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. Courses used to satisfy the diversity requirement are approved by the school Faculty Executive Committee. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (47 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.
Courses listed in more than one category can fulfill GE requirements in only one of the categories.

General Education Requirements

Foundations of the Arts and Humanities
Literary and Cultural Analysis .............. 1 course
Philosophical and Linguistic Analysis ...... 1 course
Visual and Performance Arts Analysis and Practice course
Total = 15 units minimum

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

Foundations of Scientific Inquiry
Life Sciences ................................ 2 courses
Physical Sciences .......................... 2 courses
One of the four courses must be 5 units and carry laboratory credit. Other courses in the subgroups may be 4 units.
Total = 17 units minimum

Total GE .................. 10 courses/47 units minimum

Foundations of 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 pro-
cess, as all GE requirements are fulfilled when students complete the IGETC courses. Two types of requirements must be satisfied for the award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments set requirements for minors.

Major Requirements

Preparation for the Major

Admission to the major requires completion of a set of courses known as preparation for the major. Applicants are admitted to pre-major status until requisite courses are satisfactorily completed. See 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 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 3.881 or better) for cum laude, the top 10 percent (GPA of 3.947 or better) for magna cum laude, or the top five percent (GPA of 3.978 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 B (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 Community Schooling
The Center for Community Schooling is a campus-wide initiative to advance university-assisted community schools. As stable anchor institutions, universities play a unique role as K-12 community school partners. Its research, teaching, and service missions inform and are informed by the work of local schools and communities.

Center for Critical Internet Inquiry
The work of the Center for Critical Internet Inquiry (C2i2) explores interdisciplinary intersections of digital technologies and society, with the goal of creating fairness, justice, equity, and sustainability in relationship to our technological engagements.

Center for Critical Race Studies in Education
The Center for Critical Race Studies in Education (CCRSE) along with the staff, visiting scholars, and invited authors are dedicated to producing and publishing research with the goal of exploring questions related to theoretical frameworks, methodology, methods, conceptual tools, and practice associated with critical race studies.

Center for Dyslexia, Diverse Learners and Social Justice
The Center’s aim is to provide local, state, national, and global leadership in the field, leveraging groundbreaking advances in cognitive and neurosciences, linguistics, and education to inform and transform K-12 teaching and learning.

Center for Information as Evidence
The Center for Information as Evidence (CIE) is an interdisciplinary forum to address the ways in which information objects and systems are created, used, and preserved as legal, administrative, scientific, social, cultural, and historical evidence. CIE is committed to incorporating perspectives from ethnic communities around the world, to sustain the diversity within indigenous cultural heritages and broaden methods of information analysis and conservation.

Center for Knowledge Infrastructures
The Center for Knowledge Infrastructures (CKI) conducts research on scientific data practices and policy, scholarly communication, and sociotechnical systems. It explores methods of data collection, innovations in scaling and workflows, and multidisciplinary approaches to complex problems.

Center for Research and Innovation in Elementary Education
The Center for Research and Innovation in Elementary Education, also known as CONNECT, links nationally recognized researchers with teachers and administrators at UCLA Lab School and public schools in Southern California to investigate central issues in education. Programs examine children’s learning and development from preschool to sixth grade; investigate teaching diverse student populations; encourage exchange of ideas among scholars, practitioners, and policymakers concerned with child development and school reform; and disseminate effective educational approaches and research.

Center for Research on Evaluation, Standards, and Student Testing
The Center for Research on Evaluation, Standards, and Student Testing (CRESST) is devoted to educational research, development, training, and dissemination. CRESST supplies leadership in these areas by creating new methodologies for evaluating educational quality, creating new designs for assessing student learning, promoting the sound use of assessment data, setting the national research agenda, and influencing practice.

Center for the Transformation of Schools
The Center for the Transformation of Schools (CTS) conducts research and develops tools to help education systems place a commitment to equity at the center of their work.

Center X
Center X offers a unique setting where researchers and practitioners collaborate to design and conduct programs that prepare and support K-12 education professionals committed to social justice, instructional excellence, the inte-
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.

Civil Rights Project/Proyecto Derechos Civiles

The Civil Rights Project/Proyecto Derechos Civiles (CRP) research center is dedicated to creating a new generation of research in social sciences and law on the critical issues of civil rights and equal opportunity for racial and ethnic groups in the U.S. It has commissioned more than 400 studies, published 14 books, been cited in major Supreme Court decisions on affirmative action, and issued numerous reports from authors at universities and research centers across the country.

Community Archives Lab

The Community Archives Lab at UCLA explores the ways that independent, identity-based memory organizations document, shape, and provide access to the histories of minoritized communities.

Higher Education Research Institute

The Higher Education Research Institute (HERI) conducts research, evaluation, information, policy studies, and research training in postsecondary education. The HERI research program includes the outcomes of postsecondary education, leadership development, institutional transformation, faculty performance, federal and state policy, and educational equity; and houses the Cooperative Institutional Research Program (CIRP), the largest ongoing national study of college students in the U.S.

Institute for Democracy, Education, and Access

The Institute for Democracy, Education, and Access (IDEA) seeks to understand and challenge pervasive racial and social class inequalities in education. In addition to conducting research and policy analysis, IDEA supports educators, public officials, advocates, community activists, and young people as they design, conduct, and use research to make high-quality public schools and successful college participation routine occurrences in all communities. IDEA also studies how research combines with strategic communications and public engagement to promote widespread participation in civic life.
School of Law
Russell Korobkin, JD, Interim Dean

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

- Juris Doctor/African American Studies MA
- Juris Doctor/American Indian Studies MA
- Juris Doctor/Doctor of Education
- Juris Doctor/Education MA
- Juris Doctor/Education PhD
- Juris Doctor/Master of Business Administration
- Juris Doctor/Master of Education
- Juris Doctor/Master of Public Health
- Juris Doctor/Master of Public Policy
- Juris Doctor/Master Social Welfare
Juris Doctor/Master Urban and Regional Planning
Juris Doctor/Philosophy PhD

In addition to the concurrent programs above, students may design a tailored program from other disciplines in the UCLA curriculum or from another high-quality institution; this must be arranged in consultation with the School of Law and the other selected program.

Detailed information about academic programs, course titles and descriptions, fees, and the semester-system calendar are available on degrees and specializations.

Doctor of Juridical Science Degree

The Doctor of Juridical Science (SJD) degree program is designed for those seeking to pursue careers as teachers and scholars of law. The highly selective program is open only to applicants who possess a distinguished prior academic record in law, show promise of outstanding scholarship, and demonstrate a high potential for completing a scholarly dissertation of required quality. Applicants must hold a JD degree or foreign equivalent and an LLM degree (or be enrolled in a program leading to an LLM degree).

Juris Doctor Degree

UCLA School of Law has as one of its central purposes the training of attorneys who attain high levels of professional excellence and integrity, and who exercise civic responsibility in myriad ways over long careers.

Admission

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 Juris Doctor 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.

Environmental Law

UCLA School of Law is home to the Emmett Institute on Climate Change and the Environment, a national leader in scholarship and advocacy and home to top professors who are on the legal front lines. These scholars teach the intricacies of environmental law, provide students with invaluable mentorship and offer them a substantial boost into impactful careers as drivers of law and policy at all levels of government. Students participate in a wide array of cutting-edge courses and experiential programs. These include the Frank G. Wells Environmental Law Clinic and the California Environmental Legislation and Policy Clinic, where students work directly with state lawmakers to address specific problems confronting the environment. Through the Emmett Institute, students travel to high-level meetings in California
and a variety of overseas destinations where they confer with experts in the field. Students also write and edit the Journal of Environmental Law and Policy, complete externships at organizations including the Natural Resources Defense Council and collaborate on campus-wide symposia and initiatives to confront one of the biggest challenges of our time.

**International and Comparative Law**

The International and Comparative Law program is one of the best in the nation. An expansive law faculty, course offerings, colloquia and symposia, student-edited journals, externships, foreign exchange offerings, and a broad community of interested students from around the world constitute a rich milieu in which to learn about the field. The International and Comparative Law specialization builds on these strengths, and directs students to coursework that may range from international business to comparative constitutional law to international human rights.

**Law and Philosophy**

The Law and Philosophy specialization is designed for students who want to supplement their legal studies by exploring more theoretical issues concerning the philosophical foundations of law. It is invaluable to those students interested in attending graduate programs or exploring a career in academia. The specialization exposes students to material on the nature of law and legal systems, legal methodologies, and the theoretical underpinnings and justifications of particular doctrinal areas such as constitutional law, criminal law, and contract. Students need not have any prior background in philosophy, but a strong interest in the subject is recommended.

**Media, Entertainment, 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.

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Law and Sexuality

The Law and Sexuality specialization builds on the role of the school as a leader in the field of sexual orientation and gender identity law and scholarship. The goal of the specialization is to expand the quality and extent of legal knowledge and public discourse on issues related to sexuality and law. It is affiliated with the Williams Institute, a national think tank dedicated to conducting rigorous, independent research on sexual orientation and gender identity law and public policy. Students can take classes offered by faculty members and scholars associated with the institute, and participate in a range of institute activities including the speaker series and annual conference, moot court competition, and the Dukeminier Awards journal. Staff from the institute work with LLM students to secure internships in the Los Angeles area and to establish connections between LLM students and international experts and organizations working in their geographic or topic area. The specialization involves coursework on comparative and/or international law with focus on sexuality issues.

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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

A. Barry Cappello Program in Trial Advocacy

The A. Barry Cappello Program in Trial Advocacy provides comprehensive training in the strategies and techniques required to be a successful trial lawyer. Through courses, clinical opportunities, and one of the best competition programs in the country, students learn how to prepare for and conduct jury selection, opening statements, direct and cross examinations, and closing arguments, as well as how
to make and respond to evidentiary objections. Award-winning faculty, experienced trial lawyers, and nationally successful mock trial coaches lead the program.

**Animal Law and Policy Program**

The Animal Law and Policy Program is an institutional umbrella for courses in animal law, including a clinical course through which students can learn practical legal skills while serving as hearing examiners in potentially dangerous dog disputes, and also includes a small grants program designed to encourage qualitative and quantitative empirical research that advances animal law and policy reform.

**Center for Immigration Law and Policy**

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 externship program, students can work in a supervised environment with a wide variety of employers and in a diverse range of practice areas. Students are able to extern with judges, government agencies, nonprofit organizations, or in some circumstances, entertainment and other in-house placements. They also may participate in the UCDC Law Program, a full-time externship program in Washington, DC. The field placement program brings together faculty members, students, and practicing lawyers to collaborate and connect classroom learning with practice opportunities.

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 business, by a highly respected and widely recognized faculty committed to this field, and training and supporting students planning to use their legal education to help curb penal abuse and excess and bring about meaningful change. Program initiatives include the Incarcerated Persons Correspondence Project, the Prison Accountability Project, and the COVID behind Bars Data Project.

**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.

**Prison Law and Policy Program**

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.

Transnational Program on Criminal Justice

The Transnational Program on Criminal Justice seeks justice across borders through examination of the principles, practices, and social conditions of criminal justice systems across the world. The program produces timely, collaborative research to improve understanding on diverse topics at the intersection of criminal justice, comparative and international law, and human rights law.

UCLA Institute for Technology, Law, and Policy

The UCLA Institute for Technology, Law, and Policy performs cross-disciplinary research on the ways that new and emerging technologies affect society, privacy, law, and public policy. The institute is a collaboration between UCLA School of Law and the UCLA Samueli School of Engineering. The institute brings together faculty and students from the law and engineering schools to conduct research, convene events, and engage the wider academic community and the public about the benefits and risks of technologies including artificial intelligence and machine learning, robotics, cybersecurity, and digital media and communications.

UCLA-Rand Center for Law and Public Policy

The UCLA-Rand Center for Law and Public Policy is a unique partnership of UCLA Law and the RAND Corporation. The center promotes collaborative legal and policy research grounded in multidisciplinary empirical analysis to guide legal and public policymakers in the 21st century. The center addresses topics as varied as medical malpractice, class actions, employment discrimination, and institutional reform. One of the center’s largest ongoing projects is a large-scale data collection and analysis project on civil justice in Los Angeles Superior Courts. The center has expanded curricular offerings such as courses on policy analysis and advocacy, gerrymandering, and other law and policy topics.

Williams Institute 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
School of Nursing

Lin Zhan, RN, PhD, FAAN, Dean

School of Nursing
2-147 Factor Building
310-825-7181
Student Affairs e-mail

The UCLA School of Nursing enjoys a national and international reputation for excellence in teaching, research, and clinical practice.

A strong scientific basis underlies the teaching of nursing practice, leadership, and research. Related clinical experiences are arranged within the Ronald Reagan UCLA Medical Center, its affiliates, and in selected community sites.

The bachelor’s degree program prepares nurses as generalists with special skills in primary, secondary, and tertiary prevention and care within a population-based context; leadership; and evidence-based practice. The master’s degree program prepares nurses as generalists in hospital-based care or for advanced nursing practice as nurse practitioners or clinical specialists in a variety of settings and specialized areas of health care. The PhD program prepares scholars who conduct original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied. The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners or clinical nurse specialists. The professional practice doctorate is designed to develop competencies for advanced clinical and leadership roles beyond the master’s degree necessary for the higher levels of patient safety and quality of patient care. Leadership, health system knowledge, and quality—as well as health care policy and critical content—are emphasized in the curriculum.

The school has an exceptionally qualified faculty; many members have national and international reputations for excellence. The school is consistently ranked high for its teaching and research programs. The innovative curriculum is responsive to national needs in health care and the diversity of the patient population. Graduates of the program are sought by health care institutions and educational programs, and many alumni have become leaders in the field. Education in this research university, with its full range of academic disciplines, offers a rich environment for preparation in the health sciences.

History and Accreditation

In 1949, the Regents of the University of California authorized the School of Nursing as one of the professional schools of the UCLA Center for Health Sciences. This action paved the way in 1950 for the opening of an undergraduate traditional program in nursing leading to the Bachelor of Science (BS) degree. In 1997, the original traditional BS program curriculum was revised to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. In 2006, the school reinstated a traditional/prelicensure BS program with admission at the freshman level. In 2010, the BS (Generic/Prelicensure) program was renamed to the BS (Prelicensure) program.

In 1951, a graduate program leading to the Master of Science (MS) degree in Nursing was established to prepare baccalaureate graduates for advanced practice nursing roles. In 1966, the Master of Nursing (MN) degree was established as an alternate to the MS degree, which was discontinued in 1969. In 1996, the master’s degree designation was changed from MN to Master of Science in Nursing (MSN), which is still awarded to graduates prepared as nurse practitioners and clinical nurse specialists. In 2006, the school launched the master’s entry clinical nurse (MECN)/prelicensure option within the MSN degree program, which is designed for prelicensure students with bachelor’s degrees or higher education in another discipline.

In 1986, the Doctor of Nursing Science (DNSc) degree program was approved, and in 1987 the first doctoral students were admitted. In 1995, the doctorate degree designation was changed from DNSc to PhD in Nursing. In 2013, an en-route MS option was established within the existing PhD program. In 2015, UCLA approved conversion of the DNSc degree to a PhD for former DNSc graduates.

In 2018, the Doctor of Nursing Practice (DNP) program was approved. Graduates of the DNP program will be the leaders for the translation of research into practice. The DNP
degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

The prelicensure (BS and MECN) and advanced practice master’s programs are approved by the California Board of Registered Nursing. In 2020, the Commission on Collegiate Nursing Education (CCNE) renewed that accreditation for an additional 10 years.

### Degrees

The School of Nursing offers the following degrees:

- 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 Admission

New undergraduate students are admitted in fall quarter only. BS (Prelicensure) freshman students are admitted at the freshman level, and transfer students are admitted at the sophomore level. See Nursing in Curricula and Courses for additional admission requirements.

### 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.

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, 3S, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

Writing II

The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available in the Student Affairs Office; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

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.
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
• Political Science 6, 6R
• Program in Computing 10A, 10B, 10C
• Public Affairs 60
• Statistics 10, 12, 13

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. A course taken to meet the Writing II requirement may also be applied toward a GE requirement. Preparation for the major courses may overlap with the foundation courses.

Students must meet with the student affairs officer in the Student Affairs Office to determine the applicability of GE cluster courses toward Writing II or GE requirements.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture

Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social
phenomena are achieved and evaluated. Because communication skills are essential in the nursing profession, Communication 10 is recommended for this foundational area.

**Foundations of Scientific Inquiry**

Four courses, two from each subgroup:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science.

**Foundations Course Lists**

Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

**Intersegmental General Education Transfer Curriculum**

Transfer students from California community colleges must fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Because of course sequencing and the rigor of the program, students must fulfill the general education requirements prior to transfer.

Additional requirements are listed under Admission and Preparation for the Major in Curricula and Courses.

**Major Requirements**

There are two types of requirements that must be satisfied for award of a degree: preparation for the major and the major. See Nursing 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

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**General Education Requirements**

**Foundations of the Arts and Humanities**

- Literary and Cultural Analysis ......................1 course
- Philosophical and Linguistic Analysis ............1 course
- Visual and Performance Arts Analysis and Practice course

Total = 15 units minimum

**Foundations of Society and Culture**

- Historical Analysis ....................................1 course
- Social Analysis ........................................1 course
- Third course from either subgroup ..............1 course

Total = 15 units minimum

**Foundations of Scientific Inquiry**

- Life Sciences ............................................2 courses
- Physical Sciences ......................................2 courses

Total = 18 units minimum

**Total GE ............................................. 10 courses/48 units minimum**

One of the 10 courses may be a GE-approved Writing II course in an appropriate foundational area selected from a list published in the Schedule of Classes and available in the Student Affairs Office.

Preparation for the major courses may overlap with GE foundation courses.
circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations
The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations
Credit earned through the College Board Advanced Placement (AP) Examinations may not be applied toward the general education requirements. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., History 1C). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Counseling Services
The school gives direction and furnishes information to interested potential applicants to the BS program through admissions information sessions. The schedule for these sessions, program information, and applications are available on the school website.

On entry, students are assigned a faculty adviser to aid in planning their total program. Advisers and student affairs officers continue meeting with students each term to evaluate progress, identify academic and personal needs and match them with available school and UCLA resources, confirm UC and course requirements, and maximize the students’ abilities to reach educational and professional goals. Due to the heavy course load that school programs require, students are advised against working full time.

Honors
Undergraduate students who achieve scholastic distinction may qualify for the following honors:

Dean’s Honors
The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.75 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 3.812 or better) for cum laude, the top 10 percent (GPA of 3.947 or better) for magna cum laude, or the top five percent (GPA of 3.978 or better) for summa cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current calculations of Latin honors.

Graduate Study
The Master of Science in Nursing (MSN) degree program offers prelicensure and postlicensure options. The master’s entry clinical nurse (MECN)/prelicensure program is designed for students with a bachelor’s degree in another discipline who wish to become registered nurses. The advanced practice registered nurse (APRN)/postlicensure program is for registered nurses with a bachelor’s degree in nursing who wish to prepare for an advanced practice role, such as nurse practitioner or clinical nurse specialist.

The PhD program, which includes an en-route MS option, prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners, clinical nurse specialists, or nurse administrators. Leadership, health system knowledge, quality, and health care policy are critical content emphasized in the curriculum. The DNP degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

Admission
Detailed information about the graduate academic programs is included in program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.
Degree Requirements
For complete degree requirements, see program requirements for UCLA graduate degrees.

School of Theater, Film, and Television
Brian E. Kite, MFA, Interim Dean
School of Theater, Film, and Television
102 East Melnitz Building
310-825-5761
Information e-mail

The UCLA School of Theater, Film, and Television consists of the Department of Theater and the Department of Film, Television, and Digital Media. Both are recognized national centers for higher education in production and performance as well as history, theory, and criticism.

Whether exploring the ancient and sacred roots of theater or the latest secular rituals enacted by popular film, creating a dramatic character for the bare stage or a dramatic narrative on screen, writing scripts or scholarly articles, or making digital movies or designing websites, all students in the school study both the aesthetics and cultural significance of theater, film, and television.

Through an intensive multidisciplinary curriculum, the school defines the inherent differences of theater, film, television, and new media; affirms their similarities; and encourages their interaction. As expressive art forms, modes of communication, and cultural interventions, theater, film and television, and digital media have in common the ability and power to reflect and shape perception of a complex, diverse, and ever-changing world. As artists and scholars, faculty believe that the school has an obligation to reflect on this power and to use it responsibly.

Situated in the diverse and culturally rich environment of Los Angeles—and drawing on the many resources of the campus at large (including the Center for the Art of Performance at UCLA, Geffen Playhouse, and UCLA Film and Television Archive)—the school offers the ideal setting for students to engage in the study and practice of art forms essential to a healthy and dynamic society.

Departments and Programs
The Theater Department and the Film, Television, and Digital Media Department are essential components of the rich intellectual, cultural, and professional life of UCLA. Depending on the degree involved, school programs are either strongly professional in nature, or oriented toward advanced scholarly study and research in an atmosphere that recognizes and often draws on studio practice.

Students in undergraduate courses receive a broadly based, liberal arts education within the context of either theater or film and television.

The Master of Fine Arts (MFA) degree programs prepare talented and highly motivated students for careers in the worlds of theater, film, television, and digital production. The MA and PhD programs engage students in critical study and research of these media, including their history, aesthetics, and theory; and they prepare students for advanced research within the context of college and university teaching, as well as for writing and research in a variety of media-related professions.

In the Theater Department, approximately 300 undergraduate and 80 graduate students interact with over 18 faculty members, outstanding guests of national and international standing, and a professional staff of 35 in an exciting artistic community of theater production and study. The theater and performance studies program offers PhD degrees for advanced theater and performance. Resources include four Macgowan Hall complex theaters with the technologies needed for creation, control, and integration of scenery, lighting, and sound. Areas of emphasis in the Master of Fine Arts program include acting, design, directing, and playwriting.

The Film, Television, and Digital Media Department includes both production and critical studies programs, with approximately 275 graduate and 100 undergraduate students. Its 23 faculty members include leading scholars as well as members of the Los Angeles and international film and television professional communities. In production, graduate specializations are offered in the areas of film and television production, screenwriting, animation, and producing. The cinema and media studies program offers MA and PhD degrees for advanced scholarly study of film, television, and digital media. Department resources in Melnitz
Hall include three sound stages; three television studios; extensive editing, scoring, and viewing facilities; a complete animation laboratory for traditional, stop-motion, and computer-generated animation; and a laboratory and research facility for digital media.

The MA and PhD programs are supported by UCLA library collections and the UCLA Film and Television Archive, the largest in the U.S. outside the Library of Congress. This archive forms a unique and priceless resource for research and classroom instruction. MA and PhD faculty members and students also participate in various campus organized research units.

Teaching Credentials
Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.

Degrees
The School of Theater, Film, and Television offers the following degrees and undergraduate minors:
- Film and Television BA, MA, MFA, CPhil, PhD
- Individual Field BA
- Theater BA, MFA
- Theater and Performance Studies CPhil, PhD

Undergraduate Minors
- Film, Television, and Digital Media
- Theater

Undergraduate Admission
In addition to the UC undergraduate application, departments require applicants to submit additional supporting materials. Information on departmental requirements is available on the school admissions web page.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and department requirements for a Bachelor of Arts degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements
There are seven requirements that must be satisfied for award of a degree.

Unit Requirement
Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 64 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

Scholarship Requirement
Students must earn at least a 2.0 (C) grade-point average in all courses undertaken at the University of California for receipt of the bachelor’s degree, and in all upper-division courses in the major, and in all courses applied toward the general education requirements.

Academic Residence Requirement
Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Theater, Film, and Television. Of the last 45 units completed for the bachelor’s degree, 35 must be earned in residence at the school. No more than 18 of the 35 units may be completed in UCLA summer sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirements.

Writing Requirement
Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I
The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 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– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill the upper-division nonmajor requirement and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above at UCLA with a grade of Passed or C or better.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language requirement.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Upper-Division Nonmajor Requirement

Students must complete at least three upper-division nonmajor courses (100-level) for a minimum of 12 units. Graduate (200-level) courses may not be applied toward this requirement.

A course used to satisfy the upper-division nonmajor requirement may also be used to satisfy the Writing II requirement.

A course used to satisfy the upper-division nonmajor requirement may not also be applied toward a foundation area in general education.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social
sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Courses listed in more than one category can fulfill GE requirements in only one of the categories. A course used to satisfy a major requirement may not also be applied toward a GE requirement.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement and complete 40 percent of their general education requirements.

Foundations of the Arts and Humanities

Five 5-unit courses, with no more than two from any one subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

General Education Requirements

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<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>Literary and Cultural Analysis</th>
<th>Philosophical and Linguistic Analysis</th>
<th>Visual and Performance Arts Analysis and Practice</th>
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<td>Total = 25 units minimum</td>
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<tr>
<th>Foundations of Society and Culture</th>
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<tr>
<td>Historical Analysis</td>
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<td>Social Analysis</td>
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<tr>
<td>Third course from either subgroup</td>
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<td>Total = 15 units minimum</td>
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<tr>
<th>Foundations of Scientific Inquiry</th>
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<tr>
<td>Life Sciences</td>
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<tr>
<td>Physical Sciences</td>
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<td>Total = 8 units minimum</td>
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</table>

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.

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 complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of Theater, Film, and Television GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major
A major requires completion of a set of courses known as preparation for the major, which should be completed before upper-division work is undertaken. Each department sets its own preparation for the major requirements; see 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 qualifica-

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 3.917 or better) for cum laude, the top 10 percent (GPA of 3.999 or better) for magna cum laude, or the top five percent (GPA of 4.000 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 requisites stated in department requirements or the course description. Preparation generally includes at least one lower-division course in the subject field. They are designed primarily for sophomores and juniors, though upper-division students may enroll for unit and grade credit. Upper-division courses may not be applied toward graduate degrees.

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, graduate 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, 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 M150) and the Linguistics Department (Linguistics M146). The course is listed under both departments.

Foreign Literature in English Translation

A list of courses offered by language and literature departments, that do not require reading knowledge of any foreign language, is available on the Registrar’s website.

UCLA Extension Courses

In general, students may not attend UCLA Extension for degree credit if they are enrolled in UCLA regular session at the same time. However, certain Extension courses (numbered 1–199), prefixed by XL or XLC in the Extension catalog, yield credit toward the bachelor’s degree. For details, see UCLA Extension in Policies and Regulations. Graduate students may petition to apply up to two XLC courses toward the master’s degree.
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
Mae-Li A. Allison, MA, Lieutenant Colonel, Chair

Faculty Roster
Professor
Mae-Li A. Allison, MA, Lieutenant Colonel
Adjunct Assistant Professors
Robert V. Everhart, MA, Major
Morgan B. Malone, MBV, Captain
Kekakuimauloa 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 or Space Force 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 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 during each week of 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 perspective. Students are introduced to Air Force way of life and gain knowledge on what it means to be airmen. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and critical thinking about topics of intellectual or current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Sophomore Year
20A-20B-20C. Team and Leadership Fundamentals. (2–2–2) Lecture, one hour. Designed to provide fundamental understanding of both leadership and team building. Cadets are taught many layers of leadership, including listening, understanding themselves, being good follower and efficient problem solving. Students apply these leadership perspectives when completing team building activities and discussing conflict management. Demonstration of basic verbal and written communication skills. P/NP or letter grading.

Upper-Division Courses

130A-130B-130C. Air Force Leadership Studies. (4–4–4) Lecture, three hours. 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, officer ethics, military justice, civilian control, prepare/undergo preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis on refining communication skills. P/NP or letter grading.

157. Individual Studies in Aerospace Studies. (2 or 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
Entry to the Major

Admission
To be admitted to the major, students must have completed African American Studies 1, be in good standing, and formally register with the department. Students are encouraged to declare their major as early as possible and discuss their proposed course plan with the department undergraduate adviser.

Transfer Students
Transfer applicants to the African American Studies major with 90 or more units must complete the following introductory courses if possible prior to admission to UCLA: one African American studies or civilizations of Africa course or equivalent.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: African American Studies 1, 96W, and one course selected from 2A, 2B, 2C, M5, 6, M12A, or M12B.

The Major

Required: Eleven upper-division courses as follows: (1) four courses in one area of concentration; (2) two courses, from each area, selected from the two areas not selected in (1); (3) two additional upper-division elective courses in African American studies (minimum 4 units) excluding 188SA, 188SB, 188SC, 189, 189HC, and 195; (4) one senior capstone seminar: African American Studies C191.


Honors Program

Students must take three-quarter African American Studies 198A, 198B, 198C (independent study courses) with an approved professor who oversees the thesis requirement.

Policies

The Major

No more than 8 graded units of African American Studies 195, 198A, 198B, 198C, and 199 may be applied toward the major.

Students must have an overall grade-point average of 2.0 or better.

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. For more information, contact the undergraduate adviser in the department.

Undergraduate Minor

African American Studies Minor

The African American Studies minor is designed for students who wish to augment their major program of study with courses from various disciplines germane to African American studies.

Admission

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition with the African American Studies student affairs officer.

The Minor

Required Lower-Division Courses (9 to 10 units): Two courses from African American Studies M5, 6, M10A.

Required Upper-Division Courses (20 to 25 units): Five upper-division African American studies courses.

Policies

No more than 4 graded units of African American Studies 195, 197, and 199 may be applied toward the minor. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to program approval; consult with the student affairs officer before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Concurrent Degree Program

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

- African American Studies MA/Juris Doctor

African American Studies Lower-Division Courses

1. Introduction to Black Studies. (5) Lecture, three hours; discussion, one hour. Introduction of methods, theories, conceptual frameworks, and key debates in black studies. Interrogation of how race structures notions of identity and meaning of blackness in relation to class, gender, and sexuality; essential role of African people in development of capitalism, liberalism, and democracy; what various disciplinary lenses and epistemologies (history, literature, sociology, geography, cultural studies, political theory, philosophy, etc.) reveal about black people as modern world. Key thinkers and ideas from across humanities and social sciences are highlighted. P/NP or letter grading.

2A. Africa and Middle East. (4) Lecture, three hours; discussion, one hour. Exploration of historical connections between Africa and Middle East as concepts, geographic expressions, homelands, and sites of diasporas. Examination of changing connections and connections between Africa and Middle East from ancient world to present. Students learn how concepts have changed and are constantly changing over time. Study of how Africa and Middle East fit into alternative concepts such as ancient world, Islamic world, Muslim world, or Third World. Examination of legacies of earlier trade networks, particularly slave trade, on these regions. Examination of role countries like Egypt, situation on African continent but considered Middle Eastern, play in African-Arab or African/Middle Eastern culture. In-depth exploration of how European imperialism impacted these worlds, and how process of decolonization united them. Examination of processes of immigration and emigration across these regions. P/NP or letter grading.

2B. Race and U.S. Military Intervention in Africa. (5) Lecture, three hours; discussion, one hour. Survey of U.S. military intervention in Africa in the Cold War era to present. Emphasis on ways that notions of racial hierarchy have influenced U.S. strategic priorities, threats assessment, and military initiatives throughout Africa. Special attention to U.S. covert operations and security alliances in Africa. Examination of impact of U.S. military policies on peace, conflict, and governance in Africa. Focus on changing and continuity in Black transnational responses to U.S. security initiatives in Africa, particularly during Cold War and War on Terror. P/NP or letter grading.

2C. Black Folks Hang Fu Fighting'n: Black America, Martial Arts, and Popular Culture. (5) Lecture, three hours; discussion, one hour. Exploration of longer history of Black Americans and their relationship to martial arts; who some of key players are; how Black folks’ engagement with martial arts has been represented in popular culture; connections of race, class, and gender through martial arts. Analysis of history of martial arts in Black America from post-World War II era to present. Using books and articles, movies and television shows, and other popular cultural venues, students develop critical analytical skills to understand how race, gender, and martial culture operate together to form understanding of Black American experience. P/NP or letter grading.

M5. Social Organization of Black Communities. (5) (Same as Sociology M5.) Lecture, four hours; discussion, one hour; field trips. Analysis and interpretation of social organization of black communities, with focus on origins and development of black communities, competing theories and research findings, defining characteristics and contemporary issues. Letter grading.

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. Course M7A is requisite to M7B, which is requisite to M7C. Introduction to Yoruba, one of major languages of West Africa, which is spoken widely throughout southwest Nigeria, Benin, and Togo. Coverage of basic Yoruba grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M9A-M9B-M9C. Elementary Amharic. (4-4-4) (Same as International and Area Studies M6A-M6B-M6C) Lecture, five hours. Course M9A is requisite to M9B, which is requisite to M9C. Introduction to Amharic, Semitic language that is official language of Ethiopia. Coverage of basic Amharic grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M10A. History of Africa to 1800. (5) (Same As History M10A) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to late 18th century. P/NP or letter grading.

M18. Leadership and Student-Initiated Retention. (2) (Same as American Indian Studies M18, Asian American Studies M18, and Chicano/a and Central American Studies M18) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Open to credit for students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89HC. Honors Contracts. (2) Tutorial, three hours. 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.

M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160 and Honors Colle- giun M102) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

Upper-Division Courses

M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160 and Honors College M102) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.
103A. 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 artists in America from slavery to mid-1800s. Letter grading.

103B. African American Theater History: Minstrel Stage to Rise of American Musical. (4) (Same as Theater M103B.) Lecture, three hours. Designed for juniors/seniors. 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.

103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) (Same as Theater M103E.) Lecture, three hours. Survey and examination of African American plays from 1920s until birth of modern civil rights era. Examination of socio-historical context out of which plays were created and critical essays that illustrate development of African American playwrights and their significant involvement in creation of diversified American theatrical tradition. Letter grading.

103J. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) (Same as Theater M103J.) Lecture, three hours. Survey and examination of Black theater from Black Arts Movement of 1960s until today. Exploration of social and historical implications of work, and aesthetic experimentation of contemporary African American playwrights and movements. Letter grading.

104A. Early African American Literature. (4) (Same as English M104A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from 18th century through World War I, including oral and written forms (folktales, spirituals, sermons, fiction, poetry, essays), by authors such as Phillis Wheatley, Frances Harper, Frederick Douglass, Harriet Jacobs, Charles Chesnutt, Booker T. Washington, and Pauline Hopkins. P/N or letter grading.

104B. African American Literature from Harlem Renaissance to 1960s. (5) (Same as English M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Historical 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/N or letter grading.

104C. African American Literature of 1960s and 1970s. (5) (Same as English M104C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Historical 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 Betty Shabazz, Amiri Baraka, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/N or letter grading.

104D. Contemporary African American Literature. (5) (Same as English M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Historical 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 30 years or so. Authors may include Nikki Giovanni, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/N or letter grading.

104E. Topics in African American Literature and Culture. (5) (Same as English M104E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, format, and thematic perspectives. Topics may include African American autobiography, 20th-century African American literature and film, the black diaspora, and post-apartheid African American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/N or letter grading.

105A. Ideology and Black Consciousness. (4) Lecture, three hours; discussion, one hour. How do we know what we know? Why do we think what we think? Where does our knowledge of self come from? Introductory set of theoretical tools to begin to answer such questions. Emphasis on such concerns and as they concern status of Black people in contemporary racial-cultural-economic context of U.S. and elsewhere in African diaspora. Drawing on interdisciplinary Black studies scholarship. Examination of readings related to the study of Black self-knowledge and the development of Black consciousness and exercise of power. P/N or letter grading.

105B. Issues in Pan-African Writing and Autobiography. (4) Seminar, four hours. Introduction of history of publishing and publication of narrative form from its origins in 19th century. Critical reading of biographical and autobiographic texts to deepen understanding of major themes and critiques of Pan-African thought, including notions of race, nation, and the racial and sexual politics of capitalism and labor exploitation, and national and state repression. Application of history and critical readings to students' own lives and family history through writing their own autobiographical text. Students gain experience in conducting interviews and oral histories and genealogical and archival research. P/N or letter grading.

105C. African, Africans, and History of Capitalism. (4) Lecture, three hours; discussion, one hour. Examination of role of people of African descent have had in history and political economy of capitalism since its origins in institutions of slavery and transatlantic trade. Addresses relationship between capitalism and slavery, and issues including incorporation of free Black labor into post-slavery regimes of capital accumulation; debt, underdevelopment, and Black revitalization. Emphasis on imperialism in Africa; role of land, labor, and resources in history of colonization; Black labor migration in early-20th century U.S.; Fordism and Black worker; ideas of world-systems—critique of capitalist; neocolonialism and reorganization of capital accumulation in Caribbean and Africa; and Reconstruction of race under neoliberalism. P/N or letter grading.


106A. Africa and World. (4) Lecture, four hours; discussion, one hour. Introduction to historical and contemporary Africa, with focus on modern history, politics, and culture. Survey of key issues impacting Africa today and in future—from political discussions on independence, geopolitics of aid and development, cultural transmission and relationship with African diaspora, modernization, and contemporary debates on racial and geographic divide between Arab north and south of Sahara. P/N or letter grading.

106B. Militarism, International Security, and African American Political Thought. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of trends in African American political thought regarding origins of war and peace in international relations from World War I to contemporary U.S. support for and resistance to U.S. militarism and military policy central to this inquiry. Examination of African American appraisals of justness of America's wars, and nexus between U.S. military conflicts abroad and U.S. racial politics at home. Special attention to shifting African American assessments of prospects and prerequisites for peaceful and equitable relations within international and national contexts. P/N or letter grading.

107. Cultural History of Rap. (5) (Same as Ethnic musicology M119 and Global Jazz Studies M119.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and aesthetic qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/N or letter grading.

108. Jazz and Political Imagination. (4) Lecture, three hours; discussion, one hour. How has jazz come to symbolize so many different political tendencies—freedom and democratic values, threat to order and civic order, possibility for resistance and racial harmony, Black liberation and nationalism, conservatism, surrealism, socialism, etc., throughout 20th century? What about jazz enables people to read their political aspirations and hopes into the music? Emphasis on jazz—a cultural and musical tradition that has emerged in the course of political, social, and economic change. P/N or letter grading.

110. Women in Jazz. (4) (Same as Ethnic musicology M119, Gender Studies M119, Culture and Public Policy Studies M119.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from 1880s to present. Survey of women jazz vocalists, instrumentalists, composers, performers, and producers and their impact on development of jazz. P/N or letter grading.


110A. Race, Science, and Society. (4) Lecture, three hours; discussion, one hour. Idea that races reflect inherent biological differences between social groups has been prominent aspect of European and American thought since at least Enlightenment. While these ideas have been moments of refuting this way of thinking—most notably, social constructionist thesis emerging as dominant framework in aftermath of WWII—fixed biological conceptions of race haunt contemporary biological and medical research, where race continues to be measured at nearly every scale of human biology: from molecules up to intelligence and health. Exploration of reasons for this persistence through engagement with theory and in-depth analysis of biological research. Close attention to relationship between developments in American history and production of scientific knowledge about race for P/N. Relationship that persists and promise of science reveal themselves. P/N or letter grading.

reproduction as well as strategies of resistance and strategies for securing health and sustainable reproduction. P/NP or letter grading.


CM110D. Posthumans. (4) Same as Society and Genetics M110D.) Seminar, three hours. Denaturalization of concept of human and with it uniquely western philosophical humanism. Similarities and differences between bodies of human and non-human, modern and pre-modern, male and female, abled and disabled, chosen and condemned, indigenous and European, African and whiteness, religious and secular. Exploration of formation of human throughout long course of Euro-American intellectual history and its contemporary posthuman formations. Study is informed by range of theoretical work that covers meaning of modernity, liberalism, inter-species relationships, critical race theory, conceptual problems in evolutionary biology, and public health. Concurrently scheduled with course CM215A. P/NP or letter grading.

M111. Ellingtonia. (4) Same as Ethnomusicology M111 and Global Jazz Studies M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts, Ellington’s music, known as Ellington, has been the subject for most important bodies of music ever produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians John Hodges, Coody Williams, and Mercer Ellington. P/NP or letter grading.

112A. Sunken Place: Racism, Survival, and Black Horror Aesthetic. (4) Lecture, three hours; discussion, one hour. Anarchic, post-apocalyptic, Afrofuturistic Black Panther, use of speculative fiction of Octavia E. Butler, Samuel R. Delany, Tananarive Due, Nnedi Okorafor, Stephen Barnes, and other writers—as well as short films by artists like activist Bree Newsome—to examine scope, role, and impact of Black horror, subset of horror genre that binds elements of history, sexuality, sociology, politics, African-based religions such as Vodun/Vodou, and morality tales to create mirror through which to view true-life struggles facing Black population. P/NP or letter grading.

112B. Aboard Mothership: Introduction to Afrofuturism. (4) Lecture, three hours; discussion, one hour. Anarchic, post-apocalyptic, Afrofuturistic Black Panther, use of speculative fiction of Octavia E. Butler, Samuel R. Delany, Tananarive Due, Nnedi Okorafor, Stephen Barnes, and other writers—as well as short films by Kenya’s filmmaker Witi Kabiita and British/African filmmaker Kidwe Tavares and others—to examine scope and impact of Afrofuturism, growing international cultural movement binding elements of history, sociology, technology, magical realism, politics, and futurism to create alternate reality for children of African diaspora. Exploration of influence of music of George Clinton and Parliament-Funkadelic (Mothership Connection), Erykah Badu, Janelle Monáe, and others, P/NP or letter grading.

CM113B. Legislative Theater for Race and Gender Justice. (5) Same as World Arts and Cultures CM113B.) Lecture, three hours; discussion, one hour (when scheduled). Exploration and application of range of interactive methods and arts-based strategies with participants from UCLA and broader Los Angeles community in order to research and influence public policy on key issues of change. Students and campus partners create and perform legislative theater addressing issues of race, gender, and criminal justice system. Critical texts, collaborative work, and creative methodologies 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 current writings as performed in legislative theater. Opportunities for visiting scholars and community partners. Concurrently scheduled with course CM213B. P/NP or letter grading.

CM113D. Spoken Word Workshop: Creative Writing and Performance Practicum. (4) Same as World Arts and Cultures M113D.) Lecture, three hours. Enrolment by consent of instructor. Shaped by, and consistently inspiring, broader movements for social and political change, practice of spoken word today provides creative outlets for writers and performing artists worldwide by resisting and remaking elements of traditional verse, participatory theater, and popular culture. To develop skills writing, and performing; and to deeply understand selection of poets and performing artists who have shaped spoken word as known today, investigation of aesthetics and political movements influencing their time, genre, and poetics; and range of influential movements. P/NP or letter grading.

CM113XP. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Allies. (4) 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 CM213XP. P/NP or letter grading.

CM114C. African American Political Thought. (4) (Same as Labor Studies M114C and Political Science M114C.) Lecture, three hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied in African American thought, to Debates and conflicts in black political thought, and exploration of policies and practices, art and activism, and other forms of agency engaging school-to-prison pipeline. Concurrently scheduled with course CM213XP. P/NP or letter grading.

CM114G. African American Political Thought. (4) (Same as Labor Studies M114G and Political Science M114G.) Lecture, three hours; discussion, one hour (when scheduled). Intensive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied in African American thought. P/NP or letter grading.

M115. We Gone Be Alright: Developing Next Generation of Black Organizers. (4) (Same as Labor Studies M115.) Seminar, four hours. Learning from and building on Black labor and community organizing traditions, students develop skills and mindsets needed for transformative leadership. Students connect with leaders of community organizations, student organizers, and members of Black communities, to learn how to be effective political advocates, and to develop skills in organizing community-based work. P/NP or letter grading.

M116A-M116B. African American Musical Heritage, (5-5) (Formerly numbered M112A-M12B.) (Same as Ethnomusicology M111 and Global Jazz Studies M111.) Lecture and discussion, one hour. Exploration of Black musical experiences in U.S. and Africa; music of 17th through 19th centuries; minstrelsy and its impact on representation of blacks in film, television, and the theater; religious music, including hymns, spirituals, and gospel; jazz, black music and Central and South America; and music of black Los Angeles. Lectures, three hours. Examination of processes and histories of Black musical endeavors; and contemporary manifestations, especially in American music, examination of processes and histories of Black musical endeavors; and contemporary manifestations, especially in American music, examination of processes and histories of Black musical endeavors; and contemporary manifestations, especially in American music, examination of processes and histories of Black musical endeavors; and contemporary manifestations, especially in American music, examination of processes and histories of Black musical endeavors; and contemporary manifestations, especially in American music.
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 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, homosexuals, transsexuals, 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 population? What policies have fueled mass imprisonment? Who is imprisoned? How have politicians used imprisonment as response to economic transnationalization and perceived social disorders? How is current crisis analogous to or connected? How have politicians used imprisonment as tool of social control? Relationship between police and prison systems. Role of workers in promoting multiethnic and multiracial campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of political prisoners. P/NP or letter grading.

M170A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Same as Chicana/o and Central American Studies M140A.) Seminar, three hours. Lengthening of diasporic subjectivities and political and social formations of diasporic subjects. In Progress grading (credit to be given only on completion of course M170B).

M170B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) (Same as Chicana/o and Central American Studies M140B.) Seminar, three hours. Focus on the political economy of cultural coursing. Letter grading.


M173. Nonviolence and Social Movements. (4) (Same as Chicana/o and Central 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 throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change in Los Angeles. P/NP or letter grading.

174. Intraracial Differences in 20th-Century Black America. (4) Lecture, four hours. Discussion of evolution of black difference within African American community, focusing on emergence of intraracial differences—specifically class differences—that have minimized black progress when compared with other races and cultures like Asians and Jews. Examination of origins and plight of lower-class blacks in stark juxtaposition with black leadership and African Americans occupying higher socioeconomic levels. Letter grading.

175. Racial and Ethnic Disparities in Healthcare. (4) Lecture, four hours. Designed for students who are seeking to become healthcare professionals so they understand the importance of how race and ethnicity im-
from constructive, class feedback. Collaborative, group work is essential as we build supportive learning community. P/NP or letter grading.

188A. Special Courses in African American Studies. (4) Lecture, four hours; discussion, one hour. Exploration of range of public policies concerned with promoting civil rights of racial minorities, with focus on education, voting, and housing. Why did such policies initially arise? How have they since developed? How effective have they been in closing racial gap? How have they developed over time? Provides students with basic foundation of knowledge for thinking through contemporary debates surrounding policies that seek to redress racial discrimination in U.S. P/NP or letter grading.

188S. 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 content with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual content with faculty mentor required. May not be repeated. Letter grading.


191A4. Language, Literacy, and Human Development Research Group Seminars (5) Same as Education 191A4. Seminar, three hours; laboratory, two hours (when scheduled). 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.

191B4. Culture, Gender, and Human Development Research Group Seminars (5) Same as Education 191B4. Seminar, three hours; laboratory, two hours (when scheduled). 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.

197. Individual Studies in Afro-American Studies. (2 to 4) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to juniors/seniors. Supervised individual research or investigation of large project under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Afro-American Studies. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Supervised individual research or investigation of large project under guidance of faculty mentor. Culfminating paper or project required. Eight units may be applied to major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

198HC. 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. May not be repeated. Letter grading.

199. Directed Research or Senior Project in Afro-American Studies. (2 to 4) Tutorial, to be arranged with faculty mentor who directs study. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged by student and faculty mentor. Enrolled under guidance of faculty mentor affiliated with Afro-American Studies major or minor. Short-term research project culminating in term paper in African American studiesrelated field. Field research paper may be in part or totally in relation to faculty member’s research. May be repeated for credit. Individual contract required. Letter grading.

200. Political Economy of Race. (4) Same as History 222A. Seminar, four hours. Examination of the 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 imperi-
alism—and emergence of global Black resistance to both. Themes and topics considered may include capitalism and question of slavery; law, regulations, and legal pluralism in organization of markets and nations; uneven development and nature of Black sovereignty; construction of gender and sexuality in social and capital reproduction; modalities of capital accumulation and production of space; racial violence and territorial expansion; emancipation and growth of empire, nationalization of capital and its discourses of debt; capitalism and history of anti-Blackness; racism, neoliberalism, and governmentalities; and emergence and content of Black radical tradition and its criticisms of racialization and gendering. M200C. Black Families and Relationships. (4) (Same as Sociology M262.) Seminar, three hours. Evaluation of social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with theoretical framework from black feminism to analysis of economic and other expectations for partners in cohabiting and other types of unions. Examination of family life for both middle-class and low-income populations. Exploration of notions of black sexuality, including images of hyper-masculinity and femininity within black body and the interaction of notions of sexuality and authenticity in racial identity. Contribution to greater understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean identities, and intersexual intimacies. S/U or letter grading.

200D. African American Women's History. (4) Seminar, four hours. Historical examination of black women's experiences in U.S. from antebellum era to present. Introduces major themes, including 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 historical lives? How is difference constructed through interrelated and overlapping ideologies of race and gender? How do historians uncover black women's historical lives and what are challenges of such endeavors? 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. Letter grading.

M200E. Studies in Afro-American Literature. (4) (Same as English M262.) Lecture, four hours. Intensive study of major themes, issues, and writers in Afro-American literature. Discussion and search on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.

M200F. Class, and Gender: Constructing Black Womanhood and Black Manhood in America. (4) (Same as Sociology M231.) Seminar, four hours. Race, class, gender, and sexual identity are axes of stratification, identity, and experience. They are not merely identities but structural locations that are often taken for granted and rarely confronted, challenged, or contested. Many times one or more of these go unrecognized. Exploration of multiple and intersecting ways these concepts shape society, individual life chances, and daily social interactions for African Americans. Examination of race, class, and gender as the individual and social aspects of socialization. How race, class, gender, and sexual identity shape social identities and individual experiences in interaction with each other. How these inequalities shape and are shaped by social institutions, including cultural institutions, economy, and family, within context of experiences of black women and black men in contemporary U.S. Letter grading.

200H. Social Politics of Recent African American Music. (4) Seminar, four hours. Predominant trend in research in African American music highlights intersection of music with social and political movements, contextual socioeconomic realities, and identity. Civil rights, black power, feminism, sexual revolution, and anti-war were movements that shaped and were shaped by music of their respective historical contexts. Recent scholarship has also engaged questions pertaining to intra-African American politics of community; grappling with issues such as appropriation, economic exploitation, male privilege, and marginalization of creative artists. Examination of critical nexus between music and myriad of issues unearthed by this trend in scholarly study of black music, Letter grading.

201A. Survey of Black Studies Research: Themes, Issues, and Concepts. (4) Seminar, three hours. Exploration of selected theoretical constructs, conceptual frameworks, and methodological approaches in discipline of Afro-American Studies. Identification of some of more significant debates in field as students consider how to engage and utilize these ideas—and epistemological implications of this course work. Students think critically about different forms of intellectual production and scholastic inquiry in field that is now quite broad and interdisciplinary. Letter grading.

201B. Survey of African American Studies Research Part 2: Introduction to Research Methods. (4) Seminar, three hours. Requisite: course 201A. Research methods and techniques speak to manner of research methodologies are groupings of procedures and practices to utilize and organize data and phenomena. Exploration of range of research methodologies and epistemologies in African American Studies. Students engage uses of archival research, textual analysis, oral history sources, sound analysis, digital media studies, and quantitative and qualitative approaches of data interpretation. Instructor operates primarily as coordinator, arranging guest presentations and recorded lectures by departmental faculty. Letter grading.

201C. Research Proposal Writing Seminar. (4) Seminar, three hours. Requisite: courses 201A, 201B. Designed for first-year African American Studies graduate students. Students are assisted in conceptualizing, designing, and writing research proposals. Introduction to other professional research skills will help students prepare for graduate study, academics, and/or research according to their respective areas of interest. Skills include Institutional Review Boards (IRB) or research involving human subjects; securing research grants; funding and understanding their criteria; and writing statements of purpose and personal statements as students. Demystifies thesis writing process and provides students with basic tools for writing successful and highly publishable research essay or thesis. Letter grading.

202. Critical Theory of African Diaspora. (4) Seminar, three hours. Seminar, four hours. Introduction to variety of ideas that underlie articulation of construct of African diaspora. Structured through understanding of African diaspora as historical and contemporary 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 isimagined. S/U or letter grading.

203A. Pan-Africanism: History and Historiography, 1804-1974. (4) Seminar, three hours. Pan-Africanism is among most contested, misunderstood, and misrepresented forms of anti-racial social movements to emerge in history of African diaspora and Black world. It is arguably also among most important, having influenced generations of Black intellectuals and activists with a particular role in process of decolonization and African and Caribbean independence. Study of history and ideas of pan-African thought from its origins in 19th century to moment of its existential crisis in late 20th century. Examines the role of American public policy and legislative change. Students and campus partners create and perform legislative theater addressing issues of race, gender, and criminal justice system. Critical texts, collaborative work, and creative methods are used to engage perspectives on justice. Analysis of diverse and growing body of work on systems of justice through research writing, research, workshops, performances, and critiques of original writings and performances developed in response to visiting scholars and community partners. Concurrently scheduled with course CM113B. S/U or letter grading.

203B. Readings in African Political Economy. (4) Seminar, three hours. Multidisciplinary approach to study of African political economy. While grounded in discipline of history, study prepares students to critically engage with social sciences—in particular economic, political science, and anthropology. Study of Africa's economic past from initial scholarship in 1960s and 1970s on questions such as how Africa was integrated into world economy and capital relations to questions of wealth and prosperity; to questions of governance in 1990s. S/U or letter grading.

CM210. Bibliography and Research Methods in Rap Music/Hip-Hop Studies. (4) (Same as Ethnomusicology CM220.) Seminar, three hours. Preparation: ongoing work or preparatory research in rap music/hip-hop studies. Designed for graduate students concentrating on research on hip-hop. Examination of readings related to intellectual history of hip music scholarship and allied traditions (including breakdance and graffiti). Exploration of broad range of research methods and archival resources specific to hip-hop studies. Concurrently scheduled with course CM110. Letter grading.

C210D. Posthumans. (4) Seminar, three hours. De-naturalization of concept of human and with it understandings of subjectivity and embodiment that sustain imagined boundaries between human and non-human, modern and pre-modern, male and female, able and disabled, chosen and condemned, indigenous and European, African and whiteness, religious and secular. Exploration of formation of human throughout long course of Euro-American history and its contemporary formations. Study is informed by range of theoretical work that covers meaning of modernity, liberalism, inter-species relationships, critical race theory, conceptual problems in evolutionary biology, and public health. Concurrently scheduled with course CM110D. S/U or letter grading.


CM213X. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Anxiety (Formerly numbered CM212.) (Same as Education CM228.) 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 CM113PX. S/U or letter grading.

CM213B. Legislative Theater for Race and Gender Justice. (5) (Same as World Arts and Cultures CM213B.) Seminar, three hours. Concurrently scheduled with course CM113B. S/U or letter grading.
M246. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M246.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with African American children and families. Letter grading.

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. Requisite: course CM255A or CM255B. Topics in African American art from 18th century to present. May be repeated for credit with consent of graduate adviser. S/U or letter grading.

C256. Future of Work in Decarcerated California. (4) Seminar, three hours. Limited to students in Community Scholars program. Exploration of scope of employment and nature of jobs that are attached to current system of mass incarceration in California, with focus on Los Angeles county. Study of history and evolution of carceral system and its relationship to oppression of Black people, poor, and other stigmatized groups. Exploration of history of employment discrimination against Black workers and how successful demand for unionized government jobs (public sector work) evolved as anti-discrimination remedy. Investigation of work, especially by people of color, in existing carceral regimes, and its impact on individual worker wellness and community well-being. Examination of tension between racial justice agendas to decarcerate California and those to prevent downward mobility of workers of color recruited by state to carry out failed policies of war on drugs. Concurrently scheduled with course CM166. S/U or letter grading.

C266B. Future of Work in Decarcerated California II: Applied Research and Policy Analysis for Implementation of Justice Transformation. (4) Seminar, three hours. Limited to students in Community Scholars program. Requisite: course C266. Second course in two-quarter participatory action research program that partners students with community-based change agents. Study involves project-based learning in groups made up of undergraduate and graduate students and community members. Students contribute to development of collective participatory platform that centers recommendations of formerly employed and formerly incarcerated people in broader community vision for transitioning to decarcerated workforce. Concurrently scheduled with course CM166B. 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

African Studies 310-206-6571 Program e-mail

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W. Harold Torrence, PhD (Linguistics)
Hollian Wint, PhD (History)
Alden H. Young, PhD (African American Studies)

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 can be found in the International and Area Studies section.

Graduate Major

African Studies MA

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, three hours. Exploration of key contributions and debates of academic disciplines in African studies, with emphasis on professional dimension. Review of discipline’s literature, resources, career opportunities, and professionals themselves. Letter grading.

296. Africanist Working Group. (1) Research group meeting, one hour. Collaborative exploration and discussion of current research and literature on modern Africa. Specific projects determined by research being conducted by working group participants. Activities include designing and refining research proposals, gathering and analyzing data, and interpreting and reporting results, as well as presenting research to receive critical feedback from other class participants. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate African studies students. 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. Limited to graduate African studies students. Normally taken only during term in which student is being examined. May not be applied toward minimum graduate course requirement. S/U grading.

598. Research for and Preparation of MA Thesis. (4) Tutorial, to be arranged. Limited to graduate African studies students. Normally taken only during term in which student intends to complete MA thesis. May not be applied toward minimum graduate course requirement. S/U grading.
American Indian Studies
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Nancy M. Mithlo, PhD (Gender Studies)
Angela R. Riley, JD (Law)
Gregson T. Shachner, PhD (Anthropology)
Desi M. Small-Rodriguez, PhD (Sociology)
Shannon E. Speed, PhD, ex officio
(Anthropology, Gender Studies)

Overview
Because UCLA possesses a substantial number of faculty members in the humanities and social sciences engaged in teaching and conducting research on American Indians, 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 a 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 in Native American literature, languages, theater, and contemporary societies and through more culturally specific courses on California Indians, cultures of the Pueblo southwest, and so on, the major offers an in-depth and broad knowledge on the experience of Native Americans not only in the U.S. and Canada but in Mexico and elsewhere in Latin America as well.

Given the increasingly multicultural society of the U.S. and the economic revitalization of many Native American communities, a knowledge of American Indian studies greatly enhances the professional and scholarly contributions attainable for those seeking postgraduate degrees in various related disciplines and fields.

Capstone Major
The American Indian Studies major is a designated capstone major. Seniors complete a research/service experience and participate in a tutorial where faculty members help them relate their course-derived academic experience to their original research/service efforts involving Native American communities. Through their capstone work, students demonstrate their skills at analyzing and synthesizing knowledge, show their capacity to work collaboratively with peers, and display their capacity to relate their academic research and discourse to Native American 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

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- Effective public presentation of selected theme in final paper and/or project
- Relation of academic research and discourse to Native American communities’ needs and concerns
- Communication of statistical and quantitative information to appropriate communities
- Display capacity to work collectively with peers to effectively analyze and synthesize knowledge

Entry to the Major
Transfer Students
Transfer applicants to the American Indian Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to American Indian studies course and two courses from culture and society, introduction to gender studies, introduction to American politics, or introduction to statistical methods.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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

The Major
Requirements are distributed according to certain categories to create a breadth of knowledge. Students are required to take a research methods course to become familiar with scholarly techniques of knowledge production and to critically regard academic research, as well as a course in either ethnic/race/gender relations or comparative indigenous studies. Additional courses are selected in the social sciences and humanities according to a distributional formula that encourages further specialization within either of these two broad areas while simultaneously adding additional breadth. Finally, American Indian Studies C122XP prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that supplies service experience and/or supervised internship opportunities.

The 12 courses must fit one of the following regional emphasis patterns: (1) Native North America—eight courses, including those mentioned below and additional electives on Native North American topics or (2) indigenous peoples of the Americas—eight courses, including at least four dealing with indigenous people in Central America and/or South America.

Students must complete 12 upper-division courses (48 units) as follows, with no more than 32 units from American Indian studies courses:

1. Ten core courses (40 units), including (a) American Indian Studies M161, (b) two language courses from Anthropology M150, 155, Linguistics 114, (c) two history or law courses from American Indian Studies 140, 158, C170, History 149A, 149B, 157B, (d) one social sci-
ences course from American Indian Studies C120, C121, C130, C175, C178, Anthropology 160A, or 162, (e) two expressive culture courses from American Indian Studies 180, Art History 137, CM139A, C139B, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, (f) one methodology course from Anthropology 138P, Art History 100, Community Health Sciences 181, Comparative Literature 100, Linguistics 160, Political Science 170A, Sociology 106A, 113, or World Arts and Cultures 195, and (g) either one ethnic/race/gender relations course (African American Studies M164, Anthropology M145Q, 145S, Asian American Studies 130A, M130B, M130C, 131A, 132A, 133, 134, Chicana/o and Central American Studies CM182, Film and Television 128, Gender Studies 130, 168, Sociology 154, 156, or M162) or one comparative indigenous studies course (Anthropology 143, Geography M126, History 135A, or Sociology 157).

2. American Indian Studies C122XP (experiential service learning or supervised internship)

3. American Indian Studies 199C (capstone course)

Honors Program

Students must take American Indian Studies 198A-198B-198C with a professor who agrees to mentor and guide them through the stages of senior essay design and development during their senior year. Completion of a senior thesis is required.

Policies

Preparation for the Major

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

The Major

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. No more than two independent studies courses (199s) may be applied toward the degree.

Honors Program

All junior and senior American Indian Studies majors who have a cumulative grade-point average of 3.0 or better and at least a cumulative GPA of 3.5 in coursework in the major are eligible to apply. Consult the student affairs officer for more information.

To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in the major course requirements and an overall GPA of 3.0 or better, and (3) complete American Indian Studies 198A-198B-198C, taken with a professor who agrees to mentor and guide them through the stages of senior essay design and development during their senior year. Completion of a senior thesis is required.

Undergraduate Minor

American Indian Studies Minor

The American Indian Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Science with a group of related courses from various disciplines germane to American Indian studies. The minor exposes students to Indian-related research and literature in a number of different disciplines such as American Indian studies, anthropology, economics, history, political science, sociology, and theater.

Admission

To enter the minor, students must be in good academic standing (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, 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 interdisciplinary advisor before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

American Indian Studies MA

Requirements

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

M18. Leadership and Student-Initiated Retention. (2) (Same as African American Studies M18, Asian American Studies M18, and Chicana/o and Central American Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth 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. 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 en-
M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, Asian American Studies M118, 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.

C122X. Special Topics in Community: Community-Engaged Learning. (4) (Formerly numbered C122SL) Seminar, one hour; fieldwork, four hours. Enforced requisite: course C121. Recommended: course C122. 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, training to design service learning tasks and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C222XR. Letter grading.

M123. Afro-Indigenous History: from Enslavement and Settlement to Black Lives Matter and Indigenous Sovereignty. (4) (Same as African American Studies M121.) Lecture, four hours; discussion, one hour. Examination of how race was developed through experience of enslaved and indentured African and indigenous people in U.S. and beyond. Examination of key episodes in history. Using articles, books, documents, and contemporary popular culture, examination of relationships among people of African descent and indigenous people. Study takes broad, thematic approach. Topics include first encounters in Americas of people of African descent and indigenous people; slavery in the Americas; resistance; and contemporary issues. May be repeated with language change and approval of interdepartmental chair. Letter grading.


M162. Language Endangerment and Linguistic Re-valuation. (4) (Same as Anthropology M156.) Lecture, three hours; activity, one hour. Requisites: course M10. Anthropology 4. Examination of causes and consequences of current worldwide loss of linguistic diversity and revelation of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize these languages. Special emphasis on language 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 and 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 that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform approaches. Evaluation of effectiveness of these measures and of very imagery used to discuss language endangerment. P/NP or letter grading.

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 delivery for American Indian people. Presentation 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, settlement, contact and colonialism, and Native guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C270. Letter grading.

C175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, discussions, field trips, and Native guest lecturers, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Concurrently scheduled with course C275. Letter grading.

C178. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect Native resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C278. Letter grading.

180. Introduction to and Practicum in Native American Languages. (4) Lecture, three hours; laboratory, one hour. Development of a course, reading, and writing at elementary level in Native American languages. Introduction to both phonological and grammatical structures, vocabulary, and cultural patterns of language as symbol 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 images and representations, with focus on selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

187A. Special Topics in American Indian Studies. (4) Lecture, four hours. Variable topics selected from following: Myth and Folklore of Indian 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 Schedule of Classes for times 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 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 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.

195. Community Internships in American Indian Studies. (4) Tutorial, two hours; fieldwork, eight hours. Required as course M195. Academic/Community Internship in supervised setting in community agency. Students meet on regular basis with instructor and provide periodic reports on their experience. Designed to integrate theory and learning to gain firsthand knowledge of diversity, complexity, and variety of needs of American Indian comm.
munities. May be repeated for maximum of 8 units. In
190 / American Indian Studies

201. Introduction to Interdisciplinary Methods in American Indian and Indigenous Studies. (4) Lecture, three hours. Faculty present approaches to inter-
disciplinary studies and discuss their own research. Participants include wide range of faculty whose re-
search and teaching balance disciplinary and theoret-
cal approaches with interdisciplinary approaches to
American Indian studies and indigenous studies. S/U or letter grading.

202. Key Theories and Concepts in American Indian
Studies. (4) Lecture, three hours. Addresses key
intellectual movements and concepts (such as sovereign-
eyt, self-determination, colonialism, decolonization, etc.) that have shaped the study of Indians
indigenous studies as discipline. Research and collab-
oration with indigenous communities is highlighted as
core methodological and ethical approach to knowl-
dge acquisition, fieldwork, and theorization. Histor-
ical overview of defining moments in American Indian
political and social developments as basis for gaining
deep understanding of American Indian intellectual
traditions over time. S/U or letter grading.

203. Advanced Historical Geography: American Indian
Peoples. (4) Formerly numbered M202A.) (Same as History M200W) Lecture, 90 minutes; seminar, 90
minutes. Introduction to culture-histories of North
American peoples and indigenous concepts of history. Stereotypical approach to content and meth-
odologies related to Indian past that is interdisciplinary
and multicultural in its scope. Letter grading.

207. Economic Principles and Economic Devel-
opment. (4) Formerly numbered M200D.) (Same as Public Policy M270) Seminar, two hours; discussion, one hour. Limited to graduate students. Familiarization with fundamental
concepts, themes, and principles of economic devel-
oment. Focus on indigenous communities broadly
and contrasted with other regions, countries, and
communities. Introduction to important concepts such as
demographic change, legal systems, indigenous sfe-
lection, 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.

208. Native American Languages and Discourses of
Indigeneity. (4) Same as Anthropology M208) Seminar, two hours; discussion, two hours. Designed for grad-
duates and focuses on indigenous language practices,
language ideologies, processes of language change, language revitalization, language and identity,
language and construction of place, storytelling and
performance, community/academic collaboration, lan-
guage as intellectual property, linguistic expressions of
indigeneity, and social sovereignty. Offers resources to
understand situation of indigenous languages in
wide range of Native American communities. Students
will gain a variety of research and presentation skills
and exposure to research papers and presentation of student
work at year-end Research Symposium required. Must
be taken in conjunction with American Indian Studies C1225L or an alternative upper-division course ap-
proved by program chair and academic coordinator. Individual contract required. Letter grading.

Graduate Courses

M200B. Cultural World Views of Native America. (Same as English M266) Seminar, three hours. Explo-
ation of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, reli-
gious, and traditional— in selected Native Ameri-
can societies, as these traditional and tribal contexts
have been translated into contemporary literary texts
(fiction, poetry, essay, and drama). Survey, from sec-
ondary sources, of interdisciplinary methodological
approaches taken from literary analysis, cultural anth-
ropology, folklore, linguistics, and ethnoscience.
May be repeated for credit with instructor and/or topic change. Letter grading.

M200C. Contemporary Issues of American Indians. (Same as Anthropology M244P and Sociology M275.) Seminar, three hours. Introduction to most im-
portant issues facing American Indians as individuals, communities, tribes, and organizations in contempo-
rary world, building on historical background pre-
sented in course M200A and cultural and expressive experience of American Indians presented in course
M200B. Letter grading.

C222XP: Working in Tribal Communities: Community-
Engaged Learning. (4) Formerly numbered C222SL) Seminar, one hour; fieldwork, four hours. En-
forced prerequisite: course C221. Recommended: course C220. Participation in community service learning projects within Native American communities and orga-
nizations where students are mentored and supported
by faculty members, other students, and project direc-
tors toward completing assigned service learning tasks and contributing to project activities. May be re-
peated with consent of instructor. Concurrently sched-
uled with course C122X. Letter grading.

228A-228B. Tribal Legal Systems. (228A: 3 or 4/
228B: 1 or 2) Seminar, six hours. Course 228A
forced prerequisite to 228B. Comparison of con-
temporary legal systems of Native American tribal
nations. Detailed examination of several different tribal
systems, including Navajo, Cherokee, Iroquois, and
Huron/Algonquian agreements. Legislative drafting and pro-
cesses, comparisons with Anglo-American legal
system, changes in tribal systems during period of
contact with non-Natives, 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
historical required. Concurrently scheduled with Law 528. In Progress (228A) S/U or letter (228B)
grading.

C230. California Indian Strategies for Contempo-
rary Challenges. (4) Seminar, three hours. Through
research, discussion, and fieldwork, students intro-
duce to contemporary issues and processes of self-
directed social change and political, cultural, legal,
and economic processes of nation building in contem-
porary California Native American communities. Course currently scheduled with course C130. S/U or letter grading.

238A-238B. Tribal Legal Development Clinic. (238A:
3/238B: 1) Lecture, three hours. Course 238A is en-
forced prerequisite to 238B. Students provide nonlitiga-
tive legal assistance to Native Nations. Projects in-
clude development and modification of tribal legal
codes and constitutional provisions, creation of tribal
dispute resolution processes, and drafting of intergov-
ernment agreements. Legislative drafting and pro-
cultural representation skills emphasized. Faculty
members work with tribal leaders to inform them of
availability of clinic services and determine whether
clinic could assist them with their legal development
needs. Once students are assigned to particular proj-
et, they meet with relevant tribal officials and com-
unity groups with travel funds supplied. Students learn
about tribal government systems, including federal
constraints on activities of tribal legal institutions,
and culture of tribe they are representing to be able to
bring legislation and other documents to their
tribal intensional needs and goals. Concurrently sched-
uled with Law 728. In Progress (238A) S/U or letter
or letter (238B) grading.

C245. Contemporary Indigenous Nations. (4) Sem-
inar, three hours. Introduction to topics on contempo-
rary indigenous nations, including social movements,
social and cultural change and continuity, nation
building, law and justice relations, economic develop-
ment, education and socialization, international rela-
tions, comparative policy, colonialism, migration, na-
tional and social identities, and other issues and social
processes.zej, race, class, and nation, with focus on condition
of indigenous communities that have maintained self-government, territory, and culture. Investigation and search for ana-
ytical and policy patterns that give greater under-
standing of indigenous conditions and social and cultural processes of indigenous nations. Concurrently
scheduled with course C145. S/U or letter grading.

261. Comparative Indigenous Societies. (4) Lecture,
two hours; discussion, two hours. Designed for grad-
uate students. Investigation of detailed historical and
contemporary ethnographic analyses of social change and cultural continuity within indigenous nations, pri-
narily in the U.S., but elsewhere. Discussion of theo-
ries of change, comparative methodologies, and case
cmaterials. Letter grading.
265. Federal Indian Law I. (4 or 6) Lecture, three to four hours. Overview of federal Indian law, including nature and history of tribal federal legal and political relationship; basic legal definitions within federal Indian law (such as what is Indian country); equal protection challenges under U.S. Constitution; federal Indian law and jurisdictional regimes of construction unique to Indian law; tribal sovereignty and its protection; basic questions of federal and state authority within Indian country; and tribal, federal, and state jurisdiction in Indian country according to default rules as well as special statutory regimes. May be concurrently scheduled with Law 267. S/U or letter grading.

M265A-M265B. Federal Indian Law I. (1 to 8 each) (Same as Law M267.) Lecture, three hours. Course M265A is enforced requisite to M265B. Overview of federal Indian law through study of cases and historical and contemporary materials. Basic conflicts among sovereign governments that dominate this area of law, especially conflicts over criminal, civil adjudicative, and regulatory jurisdiction. Special attention to status and sovereignty powers of Indian nations as recognized under U.S. law; federal trust responsibility; and protection issues posed by federal and state legislation singling out Indian nations and tribal members. Federal-tribal relations, tribal self-governance, child welfare included. Students gain critical understanding of basic tenets of Indian law, bases of tribal sovereignty, structure of federal-tribal relationship and its historical evolution, sense of future directions court cases, and Congress may take in addressing current legal issues in Indian country. In Progress (M265A) and S/U or letter (265B) 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. 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 established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. S/U or letter grading.

M267A-267B. Federal Indian Law II. (1 to 8 each) (Same as Law M382.) Lecture, three hours. Requisites: courses 238A and 238B, or M265A and 265B. Course M267A is enforced requisite to 267B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. In Progress (M267A) and S/U or letter (267B) grading.

C268. Healthcare for American Indians. (4) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and healthcare systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Survey of Federal Indian Health programs and development of Indian Healthcare System and Tribal/Urban Indian Health programs to understand health problems 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 CM188. Letter grading.

C270. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussions, and Native Indian guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C170. S/U or letter grading.

M272. Seminar: Cultural Property Law. (3 or 4) (Same as Law M514.) Seminar, three hours. Exploration of identity, ownership, appropriation, and repatriation of both tangible and intangible cultural property—those items that have great significance to cultural heritage and cultural survival of people. Consideration of importance of preservation of cultural property as means of maintaining group identity, self-determination, and collective rights. Examination of both inter-
Anthropology

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Andrew Apter, PhD
H. Clark Barrett, PhD
Aomar Boum, PhD (Maurice Amado Professor of Sephardic Studies)
Philippe I. Bourgois, PhD, in Residence
P. Jeffrey Brantingham, PhD
Jessica R. Cattelino, PhD
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Adjunct Associate Professors
Tamar Kremer-Sadlik, PhD
Tritia Toyota, PhD

Adjunct Assistant Professor
Thomas A. Wake, PhD

Overview

Anthropology, the broadest of the social sciences, is the study of humankind. One of the strengths of anthropology as a discipline is its holistic or integrative approach; it links the life sciences and the humanities and has strong ties with disciplines ranging from biology and psychology to linguistics, political science, and the fine arts. Anthropological study is appropriate for people with a wide variety of interests: human cultures and civilizations both present and past, human and animal behavior, particular regions of the world such as Africa, Asia, Latin America, Oceania, etc.

Studies in anthropology are particularly valuable for students planning careers in which an understanding of human behavior and cultural diversity is desirable, such as business, economics, 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 is the study of human cultures and the natural, social, ideological, economic, and political environments in which they operated in the recent and distant past. The graduate and undergraduate programs focus on methods of discovery (field and laboratory courses), strategies of analysis pertaining to long-term cultural evolution (theory, analytic, and topical courses), and the unfolding of prehistory in many regions of the world, including North America, Mesoamerica, South America, and several parts of the Old World (regional courses). Faculty members have long-standing interests in the origins and evolution of complexity, including early human adaptations, the political organization of complex hunters/gatherers, the origins of early village life, and the emergence and florescence of ancient cities and states. Faculty members maintain programs of field research involving many students in North America, Mesoamerica, South America, and East and South Asia.

Biological anthropology is the study of humans and other primates from a Darwinian point of view. The program focuses on the evolutionary ecology of early hominids, extant primates, and contemporary humans and includes training in evolutionary theory, behavioral ecology, evolutionary psychology, paleoanthropology, paleoecology, primate behavior, and mathematical modeling. Faculty members associated with the program have engaged in fieldwork in Africa, Central America, and Southeast Asia where ongoing projects include work on primate behavior, hominin 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 area of the world, but most notably in Africa, Latin America, East and Southeast Asia, and Oceania. They have also engaged in ethnographic research among Americans with diverse ethnic identities and in various institutional settings.
Bridging the four primary subfields are several other dimensions of anthropological study, including psychocultural anthropology and medical anthropology. Courses are also offered in the history and theory of anthropology and a wide range of anthropological methods.

Undergraduate Majors

Anthropology BA

The major is designed for students interested in an anthropological understanding of human behavior. One of the strengths of anthropology is its cross-cultural holistic and integrative approach with many fields, such as biology, history, linguistics, the social sciences, and many of the humanities.

Learning Outcomes

The Anthropology major has the following learning outcomes:

- Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
- Familiarity with the history, methods, and current theoretical debates in the field
- General knowledge of, and developed skills working with, empirical and anthropological evidence
- Proficiency in library research, data interpretation, synthesis, and writing
- Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

Entry to the Major

Transfer Students

Transfer applicants to the Anthropology BA major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, and one culture and communication course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Anthropology 1, 2, 3, 4; Chemistry 14A, 14B, 14BL, and 14C, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 12, or Mathematics 31A, 31B, and Statistics 12; Physics 5A, 5B, and 5C.

The Major

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); (2) one upper-division regional cultures course (160–169); (3) one upper-division history/theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150; (4) one upper-division methodology course selected from 110, CM110Q, C117, 126P, 135, 138P, 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.

Honors Program

The honors program offers research-oriented students an opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in winter quarter and 191HB in spring quarter. Research should be done in summer, and courses 191HC and 191HD are taken in fall and winter quarters of the graduation year.

Policies

Preparation for the Major

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

The Major

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

Honors Program

To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper-division Anthropology courses. The application for admission must be submitted during fall quarter. Ideal candidates should have junior or senior standing and have completed at least two upper-division anthropology courses. Students should contact the departmental honors advisor early in their studies for more information.

Anthropology BS

The major supplies an overview of human evolution and is designed to prepare students for careers in anthropology and the health sciences, including medicine, dentistry, public health, and nursing.

Learning Outcomes

The Anthropology major has the following learning outcomes:

- Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
- Familiarity with the history, methods, and current theoretical debates in the field
- General knowledge of, and developed skills working with, empirical and anthropological evidence
- Proficiency in library research, interpreting data, synthesis, and writing
- Demonstrated knowledge and understanding of mathematics, physical sciences, and life sciences to meet pre-medical-school requirements
- Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, database searches, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

Entry to the Major

Transfer Students

Transfer applicants to the Anthropology BS major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, one culture and communication course, two general biology courses for majors, one year of calculus, one year of general chemistry with laboratory, one year of general physics with laboratory, and one lower-division organic chemistry course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Anthropology 1, 2, 3, 4; Chemistry 14A, 14B, 14BL, and 14C, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 12, or Mathematics 31A, 31B, and Statistics 12; Physics 5A, 5B, and 5C.

The Major

Students must complete nine courses as follows:

1. two upper-division courses in the sociocultural anthropology field (130–149) and one in each of the other three fields: archaeology (110–119), biological anthropology (120–129), and linguistic anthropology (150–159);
2. one upper-division regional cultures course (160–169);
3. one upper-division history/theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150; and
4. two additional upper-division anthropology courses.

Students are strongly encouraged to enroll in 3 to 4 units of 89 and/or 189 courses to gain small seminar experience. Ideally, at least one of the units should be at the upper-division level.

Honors Program

The honors program offers research-oriented students an opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in winter quarter and 191HB in spring quarter. Research should be done in summer, and courses 191HC and 191HD are taken in fall and winter quarters of the graduation year.
Required Upper-Division Courses
Two courses from Anthropology 1, 2, 3, 4.

Honors Program
To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper-division Anthropology courses. The application for admission must be submitted during fall quarter. Ideal candidates should have junior or senior standing and have completed at least two upper-division anthropology courses. Students should contact the departmental honors adviser early in their studies for more information.

Undergraduate Minor

Anthropology Minor
Students who wish to take a series of courses in anthropology, but major in another discipline, may be interested in the Anthropology minor. Students select courses from the four fields within anthropology (archaeology, biological anthropology, linguistic anthropology, sociocultural anthropology), although they are encouraged to focus the body of their coursework within one field.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (10 units):
Two courses from Anthropology 1, 2, 3, 4.

Required Upper-Division Courses (20 units minimum): Core course (Anthropology 111, 120, 130, 140, or M150) from one of the four 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
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; 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 society in comparative perspective. Examples from societies around the world to illustrate basic principles of formation and evolution of institutions of human societies. Of special concern is contribution and knowledge that cultural diversity makes toward understanding problems of modern world. P/NP or letter grading.

4. Culture and Communication. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Introduction to study of communication from anthropological perspective. Formal linguistic methods compared with ethnographically oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, misunderstandings, communication, and art-making as cultural activity. P/NP or letter grading.

5. 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.

6. Research Methods in Biological Anthropology. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Introduction to research design and methodology in biological anthropology. Emphasis on problem-solving skills and research methods. P/NP or letter grading.

7. Seminar, one hour. Limited to 20 students. Honors seminar. Honors content noted on transcript. P/NP grading.

8. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Students are required to take one of the following seminars: (a) Historical Archaeology, (b) Cultural Anthropology, (c) Biological Anthropology, or (d) Linguistic Anthropology. Honors content noted on transcript. P/NP grading.

9. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and engaged in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. History of Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Brief survey of development of Western social science, particularly anthrop学, from Greek and Roman thought to emergence of evolutionary theory and concept of culture in late 19th century. Root paradigm of Western social science and its influence on such notables as Durkheim, Freud, Hall, Lombr Muse, Marx, Piaget, Terman, and others. Consideration of how this influences ethnocentrism and Eurocentrism, sexism, racism, perception of deviance, and view of culture in general. P/NP or letter grading.

Archaeology

110. Principles of Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Required course 2. Intended for students interested in conceptual structure of scientific archaeology. Archaeological method and theory with emphasis on what archeologists do and how and why they do it. Consideration of field strategies, formation processes, chronological frameworks, and other crucial principles of archaeological analysis and interpretation. P/NP or letter grading.

CM110Q. Introduction to Archaeological Sciences. (4) (Same as Ancient Near East CM169.) 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 em-bedded them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological and biochemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM210Q. P/NP or letter grading.

111. Theory in Anthropological Archaeology. (4) Lecture, three hours. Required course 2. Method and theory with emphasis on archaeology within context of ethnography. Themes include theoretical developments over last 50 years, structure of archaeological reasoning, and selective survey of work on problems of general anthropological interest. P/NP or letter grading.

112P. Selected Topics in Historical Archaeology. (4) Lecture, three hours. 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 anthropological record, with readings focused on theory and data from archaeologi-cal, 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 or 3. Examination of ancient and modern cities to evaluate how urban form developed and continues to thrive as human social phenomenon. Contemporary observations compared with archaeological case studies, including prehistoric South America, Asia, Af-rica, and ancient Near East. P/NP or letter grading.

112S. 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, rela-
Lecture, three hours. Prehistory of North American Indians; peoples, and role of archaeology in current politics. 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 settled towns, large-scale interactive networks, abandonment of Four Corners area, and historic cultures. P/NP or letter grade.  

113Q. California Archaeology. (4) Lecture, three hours. From earliest California 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 today. P/NP or letter grade.  

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 settled towns, large-scale interactive networks, abandonment of Four Corners area, and historic cultures. P/NP or letter grade.  

114P. Ancient Civilizations of Mesoamerica. (4) Lecture, three hours. Archaeology of pre-Hispanic native cultures of Mesoamerica from late Pleistocene through Spanish conquest, with emphasis on formative societies and their environments, classic period civilizations, and Aztec society as revealed by archaeology and early Spanish writing. P/NP or letter grade.  

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

M115. Archaeology of Egypt and Sudan. (4) (Same as Ancient Near East M105.) Lecture, two hours; laboratory, three hours. 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 gained. Through discussion of particular archaeological themes, regions, or sites, examination of methods of prehistoric and historic archaeology and how archaeological information contributed 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 in research in this 2,000-year period. Computer laboratory component included in which student research is performed and presented in time map. P/NP or letter grade.  

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 movements such as Buddhism, as well as consideration of how past is interpreted in present. P/NP or letter grade.  

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

M116R. Archaeological Landscapes of China. (4) (Same as Chinese M183B.) Lecture, three hours; discussion, one hour (when scheduled). Declasified space images from Cold War era and open remote sensing data of 21st century provide new opportunities for understanding 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 during past 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 grade.  

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 European colonization, including population movement, emergence of state, trade, and development of state-level societies. May be repeated for credit with topic change. P/NP or letter grade.  

116XP. Collaborative and Community-Engaged Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of pre-Hispanic and present-day communities and stakeholder engagement make archaeological practice more meaningful, especially when results of research empower descendant communities. Archaeology is an ever-evolving field with new communities to empower them in strengthening their identity. There is increasing number of anthropologists and allied social sciences who have intensified their cross-disciplinary engagement with communities that they work with. Students interact with Philippine collaborators through online conference to discuss how community participation enhances research. Students work with community stakeholders in developing heritage education materials. P/NP or letter grade.  

C117. Selected Laboratory Topics in Archaeology. (4) Lecture, two hours; discussion, one hour (when scheduled). Specialized analysis of particular classes of cultural remains. Topics may be one of following: zooarchaeology, paleobotany, ceramics, lithic analysis, rock art. Laboratory experience recommended. May be repeated for credit with topic change. Concurrently scheduled with course CM217. P/NP or letter grade.  

117P. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours. Requisite: course 2. How archaeological research is furthered by specialized analysis of particular classes of cultural remains. Topics may include animal bones, plants, ceramics, rock art. Hands-on experience working with collections and data. May be repeated for credit with topic change. P/NP or letter grade.  

118Q. Conflict and Colonialism. (4) Lecture, three hours; discussion, one hour (when scheduled). Describes the responses of students to archaeological 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 environmental and social transformations that ensued soon after contacts between indigenous groups and European conquerors. Emphasis on peoples to such contacts. Focus on archaeological perspectives, particularly long-term dynamics of cross-cultural entanglements, and effects of such in- teractions in landscape and change of past ways of life. Highlights significant contributions of archaeology to understanding often rapid and dramatic cultural changes experienced by peoples in colonial encounters. P/NP or letter grade.  

118R. Religion and Urbanism. (4) Lecture, three hours; discussion, one hour (when scheduled). Religion and ritual are fundamental components of social life, extending deep into human past. Earliest cities often made use of power of religion, with rulers and elites endowing religious architecture, and placing ritual centers at heart of urban realm. In modern times, however, religious places have been treated with more contact. Students identify the prominent in spatial realm while less-articulated with religious perspectives. Emphasis on theories and evidence for differences between men and women in their patterns of growth, fertility, mobility, parenting, and relations with members of opposite sex. P/NP or letter grade.  

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 grade.  

Biological Anthropology

120. Survey of Biological Anthropology. (4) Lecture, three hours. Requisite: course 1. Limited to juniors and seniors. In-depth survey of theory and research in biological anthropology, including evolutionary theory, genetics, primatology, human evolution, and human behavior. P/NP or letter grade.  

124P. Human Behavioral Ecology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 1 or Life Sciences 1 or 7B. Survey of research in human behavioral ecology. Relations of natural and cultural selection, kin selection, and reciprocal altruism. Emphasis on current empirical studies of modern human behavior from evolutionary perspective, including social organization, sexual division of labor, parenting, migration, and child development. P/NP or letter grade.  

124Q. Evolutionary Psychology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 1. Survey of research in evolutionary psychology. Genetics, evolution and perception, including social behavior, decision making, language, culture, and child development. P/NP or letter grade.  

M124R. Evolution of Language. (4) (Formerly numbered 124R.) (Same as Communication M124.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1 or Linguistics 1. Designed for juniors and seniors. How did human capacity for language evolve? Examination of origin of human language from phylogenetic, comparative, developmental, social and computational perspectives. Topics include evolutionary theory, linguistic structure, gesture and speech, animal communication, language learning, language disorders, and computational models of language emergence. P/NP or letter grade.  

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


126M. Molecular Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Introduction to ways in which molecular data are analyzed to answer questions concerning human evolutionary history. Topics include introduction to basic concepts and methods used to understand molecular evolution and origin and history of human species. Students learn principles of population genetics and molecular phylogenetics, and learn how to apply these methods to human and non-human primate DNA sequence data. P/NP or letter grade.  

126N. Genes, Disease, and Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Introduction to genes, disease, and culture. Introduction to basic concepts in human genetics, expanding upon evolutionary genetic concepts learned in course 1, and survey of both inherited and infectious disease on global level. Wide range of topics include gene-culture co-evolution, niche construction theory, cultural perceptions of disease, cultural responses to biological and environmental challenges, and evolutionary origins of disease. Course is broken down into genes and genomes, Mendelian disease, complex disease, and infectious disease. Dis-
Sociocultural Anthropology

130. Study of Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. An introduction to the study of human culture and its significance as a fundamental framework for scientific understanding of human behavior. Evaluation of variation in religious systems cross-culturally. P/N/P or letter grading.

136A. Introduction to Psychological Anthropology: Historical Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Limited to juniors/seniors. Survey of field of psychological anthropology, with emphasis on early anthropological and historical development of the field. Topics include study of personality, pathology and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/N/P or letter grading.

136B. Introduction to Psychological Anthropology: Current Topics and Research. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of field of psychological 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/N/P or letter grading.

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

137Q. Psychoanalysis and Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Exploration of mutual relations between anthropology and psychoanalysis, including both theory and method. History of and current developments in psychoanalysis; anthropological critiques of psychoanalytic theory and method, toward cross-cultural and ethnographic approaches. P/N/P or letter grading.

138P. Field Methods in Cultural Anthropology. (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to skills and tools of data collection through fieldwork in cultural anthropology. Emphasis on techniques, methods, and concepts of ethnographic research and how basic observational information is systematized for presentation, analysis, and cross-cultural comparison. P/N/P or letter grading.

139. Selected Topics in Cultural Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in cultural anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/N/P or letter grading.

140. Study of Social Systems. (4) Lecture, three hours; discussion, one hour (when scheduled). Overview of various career paths for students with degrees in anthropology. Enforced requisite: course 3. Introduction to more specialized social anthropology courses. Evaluation of variation in sociocultural systems, with special emphasis on forms of inequality. Basic frameworks of anthropological analysis; historical context and development of social anthropology discipline. P/N/P or letter grading.

141. Careers in Anthropology. (4) Lecture, three hours. Overview of various career paths for students with degrees in anthropology. Helps students develop academic and professional skills in preparation for life after UCLA. Focus on ways in which one can apply anthropological concepts, research methods, and analytical skills to range of careers. Guest speakers discuss how they have applied their anthropological degrees to their work outside of academia. P/N/P or letter grading.

142P. Anthropology of Religion. (4) Lecture, three hours. Survey of various methodologies in comparative study of religious ideologies and action systems, including understanding particular religious through ethnography, religious discourse, social analysis, and religious texts. Linking of social and psychological factors that may account for variation in religious systems cross-culturally. P/N/P or letter grading.
142Q. Ethnic and Religious Minorities. (4) Lecture, three hours. Annual overview of ethnic and religious minorities in contemporary Middle East and North Africa structured around sociocultural experiences of ethnic and religious groups to understand their political and professional economic anthropological perspectives for interpretation of economic life and institutions. Economic facts to be placed in their larger social, historical, and cultural contexts. Examination of modes of production, distribution, and consumption of goods and services in their relation to social networks, including structures of family, kinship, and class. P/NP or letter grading.

143. Economic Anthropology. (4) Lecture, three hours. Requisite: course 3. Introduction to anthropological perspectives for interpretation of economic life and institutions. Economic facts to be placed in their larger social, historical, and cultural contexts. Examination of modes of production, distribution, and consumption of goods and services in their relation to social networks, including structures of family, kinship, and class. P/NP or letter grading.

C144M. Multispecies Anthropology. (4) Lecture, three hours. Survey of human-animal relationships across history, from origins of domestication to the present day. Examination of the ways in which language development and socialization processes contribute to expression of gender identities in different social groups and situations. Communication—description and analysis of situated interaction order resulting from face-to-face interaction. How language and interaction order are configured by varying factors such as age, gender, and social context. P/NP or letter grading.


144S. Repatriation of Native American Human Remains. (4) Lecture, two hours; discussion, one hour. Requisite: course 160A. Examination of the legal and ethical issues surrounding the return of Native American human remains to their communities. P/NP or letter grading.

145R. Constructing Race. (4) Same as African American Studies M159P and Asian and Near Eastern Studies M169P. Lecture, three hours; discussion, one hour (when scheduled). Examination of race, socially constructed racial categories, and the historical and cultural contexts in which they arise. Emphasis on the development of racial categories over time and in different regions, racial passing, and how interaction order resulting from face-to-face interaction is configured by varying factors such as age, gender, and social context. P/NP or letter grading.

146. Urban Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Designed for junior/senior social sciences majors. Introduction to modern urban life and urban life. Examination of urban space in context of social relations by drawing from historical and cross-cultural urban ethnographies. Urban space is created according to needs of capital and actions of urban subjects. Exploration of ways in which class, gender, race, and geographic shape or context perspectives and priorities on urban social life and urban anthropological perspectives for interpretation of economic life and institutions. P/NP or letter grading.

147. Development Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Designed for seniors/juniors. Comparative study of planned and unplanned development, in particular as it affects rural societies. Emphasis on impact of capital, technological change and gender differences, economic differentiation and class, urban/ rural relations, and migration. Discussion of theoretical issues in light of case studies. P/NP or letter grading.

148. Past People and Their Lessons for Our Own Future. (5) Same as Geography M142 and Honors Collegium M152. Lecture, two hours; discussion, two hours; fieldwork, one hour (when scheduled). How the lessons from the past can inform our understanding of the present day. Focus on examining the ways in which modern human populations have come to be shaped by the processes of cultural and biological evolution. P/NP or letter grading.

149. Selected Topics in Social Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in social anthropology. Consult Schedule of Classes for topics and instructors. 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; two hours of extra work. Prerequisites: courses 142 and 20. Study of language as aspect of culture; relation of habitual thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relations of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as archaeology. (Core course for linguistics field.) P/NP or letter grading.

151. Ethnography of Everyday Speech. (5) Lecture, three hours; fieldwork. Requisite: course 4. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnographic methods of language —description and analysis of situated communicative behavior—and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, prosodic, and kinesthetic aspects of face-to-face interaction. P/NP or letter grading.

152P. Language Development and Socialization. (4) Same as Psychology M149P. Lecture, three hours; discussion, one hour (when scheduled). Improving language development processes through which children learn structures and practices of language and become competent participants in linguistic and social worlds around them. Examination of the linguistic and socialization processes for both everyday forms of speaking as well as special registers used in particular cultural contexts. Role of language and communication in Native American education contexts is also examined. Considerable attention is paid to Native American verbal art because of its cultural importance. Examination also includes language shift and current efforts by indigenous groups to reclaim and revitalize heritage languages. Role of linguistic racism directed at Native Americans and hegemonic influence of nation-states is also examined, P/NP or letter grading.


154L. Gender and Language across Communities. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 4. Examination of role language plays in social constucts and ways in which gender impacts language use and ideologies. P/NP or letter grading.

155. Cross-Linguistic Phonetic and Syllable Structure, Their Speakers, and Their Users. (Formerly numbered C155.) Lecture, three hours. Requisite: course 4 or American Indian Studies M10. Introduction and comparative analysis of sociocultural aspects of language ideologies and language use in indigenous communities through American Indian education contexts is also examined. Considerable attention is paid to Native American verbal art because of its cultural importance. Examination also includes language shift and current efforts by indigenous groups to reclaim and revitalize heritage languages. Role of linguistic racism directed at Native Americans and hegemonic influence of nation-states is also examined, P/NP or letter grading.

156L. Language Endangerment and Linguistic Revitalization. (4) Same as American Indian Studies M162L. Lecture, three hours; activity, one hour. Requisite: course 4. American Indian education contexts is also examined. Considerable attention is paid to Native American verbal art because of its cultural importance. Examination also includes language shift and current efforts by indigenous groups to reclaim and revitalize heritage languages. Role of linguistic racism directed at Native Americans and hegemonic influence of nation-states is also examined, P/NP or letter grading.

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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 that have been attempted, including mass media approaches, language policy-reform approaches. Evaluation of effectiveness of these measures and paradigm shift needed to discuss language endangerment. P/NP or letter grading.

C157P. Language and Politics. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3 or 4 in Ethnomusicology or other discipline in anthropology. Focus on recent political events to collect, analyze, and interpret recent political events to reveal underlying social forces and political realities. P/NP or letter grading.

M158. Culture of Jazz Aesthetics. (4) Same as Ethnomusicology M130 and Global Jazz Studies M130.) Lecture, three hours. Recommended requisite: course 3 or 4 in Ethnomusicology or 20A or 2OB 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 their work in jazz, combined with the interests in jazz as cultural tradition. P/NP or letter grading.

158P. Global Hip Hop Culture(s): Hip Hop, Race, and Social Justice from South Central to South Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 4. Focus on hip hop culture—movement that has captured minds of global hip hop culture—movement that has captured minds of youth around world shaping youth identities, ideologies, styles, cultural practices, and political stances. Through documentaries, readings, and music listening sessions, exploration of various local scenes that comprise global hip hop nation—multilingual, multicultural movements that often resist geopolitical status quo. P/NP or letter grading.

Selected Topics in Linguistic Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Students present topics in Linguistic Anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Regional Cultures

160A. Native North Americans. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed 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 and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonization and its implications. P/NP or letter grading.

161. Latin American Communities. (4) Lecture, three hours. Overview of social and cultural anthropology of small communities in Latin America. Similarities and contrasts in social organization and interpersonal relations described in context of economic, political, and cultural environments. P/NP or letter grading.

162. Ethnography of South America. (4) Lecture, three hours. Introduction to ethnography of South American Indians, with special emphasis on Lowland South American and Native American cultures. Emphasis on man and woman in society in this world area and examination of exemplary cultures symptomatic of various levels of cultural achievement. P/NP or letter grading.

163P. Ideology and Social Change in Contemporary China. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to sociocultural changes in China from 1949 to present. Topics include ideology and politics in everyday life, social stratification and mobility, cultural construction of socialist person, changes in current, marriage, and family, and political economy of reforms in post-Mao era. P/NP or letter grading.

163Q. Societies of Central Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Overview of society and culture among diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and within framework of recent national integration, kinship, marriage, and status of women, religion and social order in Hindu/Buddhist culture contact zone, and current problems of modernization. P/NP or letter grading.

163R. Japan. (4) Lecture, three hours. Overview of contemporary Japanese society. General introduction, kinship, marriage and family life, social mobility and education, norms and values, religions, patterns of interaction, social deviance. P/NP or letter grading.

166P. Sub-Saharan Africa. (4) Lecture, three hours. Issues of ecology and political economy; continuing impacts of colonialism, nationalism, and current challenges for development; changes in social relations. Examination of Africa’s significance to development of anthropology. Cultural background for understanding events in contemporary Africa provided. P/NP or letter grading.

166Q. Culture Area of Maghrib (North Africa). (4) (Same as Arabic M171 and History M108C.) Lecture, three hours. Designed for seniors/juniors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tannarg. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights; changing representations of Islam, and religions in region’s public spaces. P/NP or letter grading.

167. Culture Area of Middle East. (4) Lecture, three hours. Study of Middle East has suggested many theories of development and dependency, evolution of human society, birth of monotheism, and origins of agriculture, trade, and cities. Presentation of anthropological material relevant to understanding Middle East as culture area, and Islam as basis of its shared tradition. P/NP or letter grading.

168P. Cultures of Pacific. (4) Lecture, three hours. Four major culture areas of Australia, Melanesia, Polynesia, and Micronesia. General geographical features, prehistory, and last contribution to whole region. Distinctive sociocultural features of each culture area presented in context of their adaptive significance. P/NP or letter grading.

168Q. Ethnic Identity and Ethnic Relations in Hawai'i. (4) (Same as Asian American Studies M143C.) Lecture, three hours; discussion, one hour. Continuing construction and expression of ethnic identity in various cultural forms and social contexts in Hawai'i. Overview of the 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/NP or letter grading.

169. Selected Topics in Regional Cultures. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in regional cultures. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Specialized Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Coleman 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 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 major 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 reading, discussion, and other activities. May be repeated for credit with maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Anthropology. (4) Seminar, three hours. Research seminar on selected topics in anthropology. Reading, discussion, and development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

191HA. Beginning Seminar. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major topics in anthropology to aid honors students in developing research proposals. Letter grading.

191HB. Field Methods. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major methods in anthropology to aid students to conduct their own field research. Letter grading.

191HC. Data Analysis. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major forms of data analysis in anthropology to aid honors students in analysis of their own research data. Letter grading.

191HD. Writing for Anthropology. (4) Seminar, three hours. Limited to anthropology honors program students. Teaching of writing skills, with focus on how to write honors theses. Letter grading.

191HE. Writing for Publication and Conference Presentations. (4) Seminar, three hours. Limited to anthropology honors program students. Preparation of honors theses for publication and for conference presentations and posters. Letter grading.


194. Research Group Seminars: Anthropology. (1) Seminar, one hour. Limited to undergraduate students who are part of research group or internship. Discussion of research methods and current literature in discipline or of research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

195CE. Community and Corporate Internships in Anthropology. (4) Tutorial, to be arranged; fieldwork, travel, and other activities. Limited to juniors or seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students complete weekly written assignments, attend major meetings arranged in advance with the instructor, and write final research paper. Faculty mentor and graduate student instructor conduct 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
Graduate Courses

200. Anthropology Graduate Proseminar. (4) Seminar, three hours. Exposes incoming graduate students to contemporary view of anthropology by using work of UCLA faculty members to identify cross-cutting themes that bridge four fields of discipline and represent interdisciplinary historical overview of field and tracing of formation of discipline. Faculty guest speakers engage in discussion on aspects of their work that intersect with one or more topical threads of coursework and connect by instructor and one or more student discussants. Discussion of speaker’s work, instructor and student responses, and weekly readings selected from visiting faculty members’ work in broader history of field. S/U or letter grading.

M201A-M201B. Graduate Core Seminars: Archaeology. (4) (Same as Archaeology M201A-M201B.) Seminar, three hours. M201A is required. Topics include anthropology students. Discussion focused on current list of 25 major works related to development of anthropology in social sciences (M201A) and humanities (M201B). Core seminars provide students with foundation in breadth of knowledge required of professional anthropologists. Archaeological archaeology, survey of world archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and relevant interpretative strategies. May be repeated for credit with consent of advisor. S/U or letter grading.

M210C. Archaeological Research Design. (4) (Same as Ancient Near East M201 and Archaeology M210C.) Seminar, three hours. Seminars: courses M201A, M201B, M201C. How to design archaeological projects in preparation for MA thesis or PhD research. Topics include 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 202A) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Discussion focused on introducing students to field, and providing opportunity to present written work, e.g., papers or other student efforts, and engage with, work being done by others in department. Letter grading.

202B. Core Seminar: Biological Anthropology. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. First in two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and evolutionarily more generally. Topics include evolutionary theory, paleoanthropology, population genetics, and evolutionary game theory. Letter grading.

202C. Core Seminar: Biological Anthropology. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Second in two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and evolutionary theory more generally. Topics include evolutionary theory, primatology, evolutionary psychology, cultural evolution, and human behavioral ecology. Letter grading.


203C. Core Seminar: Sociocultural Anthropology—Scientific and Interpretive Frameworks in Contemporary Anthropology. (4) Seminar, three hours. Recommended requisite: course 203B. Examination of selected contemporary works and issues in field of sociocultural anthropology. Letter grading.

204A. Core Seminar: Linguistic Anthropology. (4) Seminar, three hours. Designed to familiarize graduate students with central theoretical and methodological concepts in linguistic anthropology. Study of classic and contemporary texts, focusing on relationship between language and culture. Focus on linguistic anthropological theory, with additional discussion of methodologies within and related to discipline including ethnographic fieldwork, conversational analysis, sociolinguistic analysis, socio-phonetic analysis, sociolinguistic interpretation, 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 subfields. Consideration of how texts map onto and connect to methodologies and disciplines, and prior approaches to understanding interplay between language, context, and culture. Consideration also of how that writing as genre, and critical attention to ways authors present data, marshaling theory, and present arguments within book format. This provides methods of characterizing very different generic expectations for dissertation writing, as well as advice for additional professionalization component. Letter grading.

Archaeology


CM210Q. Introduction to Archaeological Sciences. (4) (Same as Ancient Near East CM269.) 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 been engaged in scholarly publications or theoretical models. Systematic instruction in digital data management and analysis of materials (including geological and biochemical techniques) and visual presentation of data and research results ranging from simple graphs to virtual reality. Concurrently scheduled with course CM110Q. S/U or letter grading.

211. Classification in Archaeology: Method and Theory. (4) Seminar, three hours. Limited to graduate anthropology and archaeology students. Discussion of issues that have guided arguments about how archaeological classifications of artifacts should be conducted, with focus on ceramic classification and discovery of cultural types. Methods for implementing discovery approach to classification illustrated with lithic and pottery examples. Review of relationship between classification, style, and function. S/U or letter grading.

212P. Explanation of Societal Change. (4) Seminar, three hours. Examination of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general systems theory, ecology, anthropology, and other sources. Specific research questions vary with each course offering. May be repeated for credit. S/U or letter grading.

212Q. Archaeology of Urbanism. (3) Seminar, three hours. Evaluation of cities as most complex form of human population center, using both archaeological and modern examples. Observations about material culture and space and its assessment of social dynamics as cities are constructed and lived in by variety of different ethnic, economic, ritual, and political groups. S/U or letter grading.

214. Selected Topics in Prehistoric Cultures of Northern South America. (4) Seminar, three hours. Mesoamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

M216. Topics in Asian Archaeology. (4) (Same as Art History M245B.) Seminar, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religion, archaeological reflections of commerce and trade and their influence on social development, archeology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.

CM217. Selected Laboratory Topics in Archaeology. (4) (Same as Archaeology M205A.) Lecture, one hour; laboratory, two hours. Designated for graduate students in archaeology or in other departments. Specialized analysis of particular classes of cultural remains. Topic may be repeated. Topics may be selected from field techniques, paleoethnobotany, ceramics, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with topic change. Concurrently scheduled with course C117. S/U or letter grading.

219. Selected Topics in Anthropological/Archaeological Theory. (4) Seminar, three hours. Designed for graduate students. Variable topics course on important theoretical and methodological topics in anthropology. Topics include early village societies, specialization and cultural complexity, ethnography for archaeologists, power and hierarchy in intermediate societie, and mortuary/pathological analysis. Urbanism, and exchange systems. May be repeated for credit. S/U or letter grading.

Biological Anthropology


222. Graduate Core Seminar: Biological Anthropology in Review. (4) Seminar, three hours. Graduate core course in biological anthropology. Topics include evolutionary theory, behavioral primates, hominid evolutionary history, and contemporary human variation. Letter grading.

233. Experimental Biological Anthropology. (2) Seminar, two hours. Research seminar for graduate students conducting experimental research in biological anthropology to assist students in developing research ideas and methods and analyzing results. S/U grading.

229. Current Problems in Biological Anthropology. (4) Seminar, three hours. Detailed examination of current research in biological anthropology (specific topics to be announced). Emphasis on nature of hypothesis and their testing in ongoing student and faculty research. May be repeated for credit. S/U or letter grading.

232P. Anthropology in Practice. (4) Seminar, three hours. Limited to graduate students. Examina- tion of theoretical assumptions and debates that ani- mate visual anthropology very broadly defined, in- cluding issues of production, production, and the ception of visual media, which includes 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 infor- mation economy, with emphasis on ethnography. Reading of anthropological work and materials from range of disciplines, including sociology, geography, urban studies, and management studies. S/U or letter grading.


233Q. Latin America: Traditional Medicine, Sha- manism, and Folk illness. (4) Same as Community Health Sciences M264 and Latin American Studies M264.) Lecture, three hours. Recommended prepara- tion: Community Health Sciences 132, bilingual English/Spanish skills, knowledge of history, culture, ecology, and health issues throughout Americas, especially indige- nous peoples. Medicinal systems, descriptive and cross-cultural analysis of indigenous and mestizo groups diag- nose and treat folk illness and Western-defined dis- eases with variety of health-seeking methods. Exam- ination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and au- diotape. Letter grading.

233R. Health and Culture in Americas. (4) Same as Community Health Sciences M264 and Latin American Studies M264.) Lecture, three hours. Recommended prepara- tion: Community Health Sciences 132, bilingual English/Spanish skills, knowledge of history, culture, ecology, and health issues throughout Americas, especially indige- nous peoples. Medicinal systems, descriptive and cross-cultural analysis of indigenous and mestizo groups diag- nose and treat folk illness and Western-defined dis- eases with variety of health-seeking methods. Exam- ination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and au- diotape. Letter grading.

234. Mind, Medicine, and Culture. (2) Seminar, two hours. Interdisciplinary discussion group host- ing regular talks and discussions with scholars from UCLA and beyond. Group provides forum for exploring re- cent research and classical and contemporary theo- retical perspectives that inform psychological studies and medical anthropology.


236. Seminar: Psychocultural Studies and Medical Anthropology. (4) Seminar, three hours. Devoted to present state of research in psychocultural studies. Survey of current child development and socialization, personality, psychobiology, transcultural psychiatry, deviance, learning, perception, cognition, and psychocul- tural perspectives on change. S/U or letter grading.

237. Psychological Anthropology. (4) Same as Psychiatry M272.) Seminar, three hours. Various psy- chological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and cul- ture psychiatry. Discussion of questions relating to symbolic and unconsciousness process as they relate to culture. Topics vary from term to term. May be re- peated for credit with topic change. S/U or letter grading.

238. Native American Revitalization Movements. (4) (Same as History M260C.) Lecture, two hours; dis- cussion, one hour. Examination of revitalization move- ments among native peoples of North America (not of Mexico). Specified topics include Handsome Lake, 1870 and 1890 Ghost Dances, and Peyote Reli- gion. Letter grading.

239. Selected Topics in Field Ethnography. (4 to 6) Seminar, three hours. Discussion and practicum in various techniques for collecting and analyzing ethnog- raphic field data. S/U or letter grading.

239Q. Ethnographic Methods in Sociocultural An- thropology. (4) Seminar, three hours. Introduction to some of key methodological and theoretical issues in anthropological re- search, paying special attention to topic formation, re- search design, deployment of evidence and theoretical resources, techniques of engagement (participant observation, interviews, and ethnographic field work by media making and analysis, and politics and ethics of ethnog- raphic knowledge production. Approach combines readings in critical anthropology relevant to method- ological practice with exploratory practical activities, particular techniques for gathering, analyzing, and presenting field material. Exploration of limits and power of ethnography (broadly construed) by setting up model project, catalyzing with typical fieldwork tasks. S/U or letter grading.

239R. Latinx Photoanthropology. (4) (Same as Chi- cano/a and Central American Studies M218.) Seminar, three hours. Hands-on introduction to using photog- raphy as ethnographic field method. Introduction to basics of photography with review of key and relevant literature from fields of sociocultural anthropology, vi- sual anthropology, and photography theory. Explora- tion of technical, ethical, and aesthetic aspects of pic- ture making and their relationship to anthropological field methods, participant observation, and issues of representation—especially among Latinx communi- ties. Student-lead discussions of assigned readings and in-class hands-on learning. Quarter-long photo- anthropography project focused on Latinx issues in greater Los Angeles region.

241. Culture, Power, Social Change. (2) Seminar, two hours. Cutting-edge research in sociocultural an- thropology. Talks given by scholars from different uni- versities around world and faculty and students from UCLA with discussion led by student and faculty from wide range of related departments in addition to anthropology. Additional discussions about recently published or unpublished manuscripts. Pro- fessionalization sessions for doctoral students. Topics of discussion vary from year to year. S/U grading.


244M. Multispecies Anthropology. (4) Lecture, three hours. Survey of animal- and human-animal relations across history, theory, and practice, attention to present-day debates over animal rights, and very dif- ferent ways specieses 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 C144M. S/U or letter grading.

244P. Contemporary Issues of American Indians. (4) Same as American Indian Studies M200C and So- ciology M275.) Seminar, three hours. Introduction to most important issues facing American Indians as in- individuals, communities, tribes and organizations in contemporary world, building on historical back- ground presented in American Indian Studies M200A and cultural and expressive experience of American Indians presented in American Indian Studies M200B.

244S. 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 ob- jects to them. Examination of this phenomenon. May be concurrently scheduled with course C144S. S/U or letter grading.

245. Critical Theory of African Diaspora. (4) (Same as African American Studies M202.) Seminar, four hours. Introduction to variety of ideas that un- derlie 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 be- longs to African diaspora 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 current sociocultural, antilatency, postcolonial, and faculty from wide range of related departments in with discussion regularly attended by students in UCLA with discussion regularly attended by students in UCLA.

247R. Modernization and Taiwan Indigenous Soci- eties. (4) Seminar, three hours. Historical examination of integration of indigenous groups into state poli- cies, local and national economy, and indigenous discourses that forced erasure of indigenous cultures and knowledge. Study of resistance by groups to assimila- tionist processes through emergence of new strate- gies meant to maintain indigenous ties with re- gard to Han hegemony. Focus on intensification of in- digenous peoples’ tie to land. Offers framework to understanding Taiwan indigenous peoples’ experi- ences under modernization. S/U or letter grading.

248. Anthropology and History of Mediterranean. (4) (Same as History M248 and Near Eastern Languages M248.) Seminar, three hours. Introduction to historical and anthropological writings about Mediter- ranean. Draws on variety of classic and contemporary theories, histories, and ethnographies about Mediter- ranean Sea. Topics include geographical and imagi- nary boundaries, Mediterranean honor/shame con- cepts, colonial and post-colonial Mediterranean, Le- vantanism, thalassology, Mediterraneanism, French Mediterranean, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobility. Focuses on critical history of anthropological study of Medi- terranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

249. Selected Topics in Social Anthropology. (4) Seminar, three hours. Historical examination of impact of modernization on indigenous populations in Taiwan beginning with Han colonization. Examina- tion of integration of indigenous groups into state poli- cies, local and national economy, and indigenous discourses that forced erasure of indigenous cultures and knowledge. Study of resistance by groups to assimila- tionist processes through emergence of new strate- gies meant to maintain indigenous ties with re- gard to Han hegemony. Focus on intensification of in- digenous peoples’ tie to land. Offers framework to understanding Taiwan indigenous peoples’ experi- ences under modernization. S/U or letter grading.

252A. Ethnography of Communication. (4) Seminar, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of sociolinguistics and ethnography of commu- nication. Particular attention to theoretical develop- ments including relationship of ethnography of com-
communication to such disciplines as anthropology, linguistics, and sociology. Topical foci include style and strategy, speech variation, varieties of nonverbal speech genres, languages and ethnicity, and nonverbal communication behavior. S/U or letter grading.

252B. Ethnographic Methods in Language, Interaction, and Culture. (4) Seminar, three hours. Required of all new teaching assistants. Workshop or seminar in teaching techniques, including evaluation of each student’s own performance as teaching assistant. Four-day workshop precedes beginning of term, followed by 10-week seminar during term designed to deal with problems and techniques of teaching anthropology. Undergraduate credit may be applied toward full-time equivalence but not toward nine-course requirement for MA. S/U grading.

253. Language Ideologies: Political Economy of Language Beliefs and Practices. (4) Lecture, three hours. Language ideological research problematizes fundamental assumptions about speakers’ use of language and communicative practices: (1) speakers’ awareness of these structures and processes and (2) relationship of this consciousness to speakers’ political economic perspectives and to actual communication. S/U or letter grading.

254. Discourse Laboratory. (2) Seminar, two hours. Interdisciplinary discussion group around in-progress research projects, talks, published articles, and methodologies and occupational development in linguistic anthropology. S/U grading.

255. Native American Languages and Discourses of Indigeneity. (4) Formerly numbered 255.) (Same as American Indian Studies M255B.) Seminar, three hours. Preparation: prior coursework in anthropology, linguistics, or American Indian studies. Close reading and discussion of books and articles on topics relating to Native American languages and discourse of indigenous communities. Topics include critical language documentation, multilingualism, indigenous language practices, language ideologies, policies and practices of publication and concealment, language revitalization, language and culture and construction of place, storytelling and performance, community/academic collaboration, language as intellectual property, linguistic expressions of indigeneity, and cultural sovereignty. Offers resources to understand situation of indigenous languages in wide range of Native American communities. Students perform variety of roles in discussions, an develop book reviews, grant proposals, and research design and—where appropriate—sections of their theses and dissertations. S/U or letter grading.

256. Language, Culture, and Education. (4) Same as Education M256.) Lecture, four hours. Exploration of ongoing movement to reclaim and reimage schooling as site to sustain indigenous, Black, Latinx, Asian and Pacific Islander communities, including ways these identities/memberships intersect with gender identity and expression, sexuality, dis/ability, language, migration, place, class, and more. For centuries of teaching and learning, communities have sought to push against ways nation-state schools have devalued communities, their lifeways, and their lives. Most recently, this movement is indebted to several decades of research, theory, and practice in asset-based and strengths-based pedagogy. Work on culturally sustaining pedagogy (CSP) has joined these decades (and centuries) of work to offer vision of school that seeks to perpetuate and foster—sustain—linguistic, cultural pluralism as part of schooling for positive social transformation and revitalization. S/U or letter grading.

257. Topics in Semantics and Pragmatics. (4) Seminar, three hours. Detailed examination of specialized topics in semantics and pragmatics. Topics vary from year to year and may include metaphor, theories of reference and denotation, honorific speech, evidentiality, reported speech, etc. May be repeated for credit with topics changes. S/U or letter grading.

257P. Language and Politics. (4) Lecture, three hours; discussion, one hour (when scheduled). Required of all new teaching assistants. Workshop or seminar in teaching techniques, including evaluation of each student’s own performance as teaching assistant. Four-day workshop precedes beginning of term, followed by 10-week seminar during term designed to deal with problems and techniques of teaching anthropology. Undergraduate credit may be applied toward full-time equivalence but not toward nine-course requirement for MA. S/U grading.

Research Methods

282. Research Design in Cultural Anthropology. (4) Lecture, three hours. Primarily designed for graduate students preparing for fieldwork. Unique position of anthropology among sciences and resulting problems for scientific research design. Review of typical research problems and appropriate methods. Students prepare their own research designs and present them for class discussion. S/U or letter grading.

283. Proposal Writing Seminar. (4) (Formerly numbered 283.) Seminar, three hours. Introduction to art of proposal writing. Focus on proposal for anthropological fieldwork, with skills being useful across disciplines and proposal genres. Structured as writing workshops, with class meeting; assignments and group critique. S/U or letter grading.


285A. Qualitative Research: Design and Data Collection. (4) (Formerly numbered M285A.) Same as Community Health Sciences M216A.) Seminar, three hours; laboratory, one hour. Intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methods and techniques in research and evaluation related to health care. Letter grade.

285B. Qualitative Research: Analysis and Dissemination. (4) (Same as Community Health Sciences M216B.) Lecture, three hours. Hands-on approach to qualitative data analysis. Students learn how to conduct all steps of thematic analysis, including developing codes and coding schemes, analytic techniques to compare and categorize data, assessing validity and quality of data, as well as summarizing and presenting findings. Emphasis on using qualitative methods and techniques in research and evaluation related to health care. Letter grade.

288. Relational Models Theory and Research Design, (4) Seminar, three hours. Relational models theory (RMT) posits that people in all cultures use combinations of just four relational models (RMs) to organize most aspects of most social coordination; communal sharing, authority ranking, equality matching, and market pricing. Exploration of how people use these RMs to motivate, generate, constitute, coordinate, judge, and sanction social interactions. RMT aims to write a short book that is universal and what varies across cultures, positing necessity for cultural complements that specify how and with whom each relational model operates. Readings may include RMT research in social anthropology, anthropology, social theory, semiotics, linguistics, developmental, cognitive, social, political, moral, clinical, and cultural psychology, neuroscience, evolution, sociology, family studies, philosophy, management, marketing, and consumer psychology, economics, justice, public health, public policy, and international development. S/U or letter grading.

Specialized Studies

294. Human Complex Systems Forum. (1) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding nature of human societies from complexity and multigenerational perspective. May be repeated for credit. S/U grading.


299. Selected Topics in Anthropology. (4) Seminar, three hours. Designed for graduate students. Specialized topics and instruction as needed. Consent of instructor. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

Special Studies

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel 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 Anthropology. (2 to 4) Seminar/workshop, three hours. Designed for graduate students. Required of all new teaching assistants. Workshop/seminar in teaching techniques, including evaluation of each student’s own performance as teaching assistant. Four-day workshop precedes beginning of term, followed by 10-week seminar during term designed to deal with problems and techniques of teaching anthropology. Undergraduate credit may be applied toward full-time equivalence but not toward nine-course requirement for MA. 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.


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


599. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. PhD dissertation research or writing. Students must have completed qualifying examinations and ordinarily take no other coursework. S/U grading.
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 36. Not open for credit to students with credit for course 30. Exploration of range of topics related to study of language and social interaction in both mundane and professional settings, particularly how language affects social lives and how social organization affects use of language. Topics include different approaches to study of language in social interaction (theories and research methodologies), issues regarding language and social identity (such as socioeconomic status, race, gender, and situational identity), and issues concerning language and culture (such as cross-cultural misunderstanding and language socialization). Satisfies Writing II requirement. Letter grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel placement as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study. (2 to 12) Tutorial, to be arranged. Limited to MA and PhD students. Independent study in one area of applied linguistics. May not be applied toward MA course requirements. Up to 8 units may be applied toward PhD course requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for PhD Candidacy Examination. (4 to 8) Tutorial, to be arranged. Preparation: completion of at least six courses of 32-unit requirement for PhD. May not be applied toward 32-unit requirement. May be repeated for credit. S/U grading.

599. Research for and Preparation of PhD Dissertation. (4 to 10) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Required of all PhD candidates each term they are registered and engaged in dissertation preparation. May be repeated for credit but may not be applied toward PhD course requirements. S/U grading.

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Thomas A. Wake, PhD (Anthropology)
Willeke Z. Wendrich, PhD (Near Eastern Languages and Cultures)
Glenn Wharton, PhD (Art History)
Gregory D. Woof, PhD (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.

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 a paradigm in STEM education. Instant practical application of mathematics during surveying, geology during ceramic analysis or geophysical research, biochemistry during archaeological residue analysis, or biology during zooarchaeological or palaeoethnobotanical research offers point of departure for instructors as well as motivation to students. P/N or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N 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


M112. Archaeology and Art of Christian and Islam -ic Egypt. (4) Lecture, three hours. Upper-Division Courses (C111: Islamic Art and Architecture, C112, and Middle Eastern Studies C112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to modern evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. 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 geography and land use. 3-4 units. Concurrently scheduled with course C210. Final project or paper required if taken for 4 units (P/NP or letter grading); 2- unit course has P/NP grading.

C120. Special Topics in Archaeology. (2 to 4) Lecture, three hours. Designed for juniors/seniors. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 2-unit course has P/NP grading.

C159. Archaeological Metallurgy. (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. May be repeated for credit with topic change. 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. Exploration of knowledge and research on corrosion and preservation 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. 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 of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Graduate Courses

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 and humanities (M201A) and of recent research (M201B). Compulsory core seminar provides student with foundation in breadth of knowledge required of professional archaeologists. Archaeological historical survey, overview of world archaeology, and archaeological techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and research interpretation of strategies to 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 design archaeological projects 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 formulations bridges argued requirements. 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 or in other departments. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zoological, 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. (6) Lecture, three hours; laboratory, two hours min. 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.


C220. Special Topics in Archaeology. (2 to 4) Lecture, three hours. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 2-unit course has P/NP grading.

M265. Depositional History and Stratigraphic Analysis. (4) Seminar, four hours. Required of all students. Seminar discussions based on carefully selected list of 25 major works related to development of archaeology in social sciences and humanities (M201A) and of recent research (M201B). Compulsory core seminar provides student with foundation in breadth of knowledge required of professional archaeologists. Emphasis on appreciation of multidisciplinary background of modern archaeology and research interpretation of strategies to be repeated for credit with consent of adviser. S/U or letter grading.

596. Individual Studies for Graduate Students. (2 to 12) 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.

598. MA Paper Preparation. (2 to 12) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U grading.


Architecture and Urban Design / 203

Admissions e-mail

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

Faculty Roster

Professors
Hosito Abe, PhD (Paul I. and Hisako Terasaki Professor of Contemporary Japanese Studies)
Dana Cuff, PhD
Neil M. Denari, MArch
Greg S. Lynn, MArch

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Architectural Design

ARCHITECTURE AND
URBAN DESIGN

which, when earned sequentially, comprise an
degree and a professional graduate degree
consist of a pre-professional undergraduate
standards. Master's degree programs may
on its degree of conformance with established
mit a statement of interest and a three- to six-
mission is highly competitive, and only a limited
in a wide range of fields.
Learning Outcomes
The Architectural Studies major has the follow-
ing learning outcomes:
• Demonstrated competence in representa-
tional techniques including physical and digi-
tal modeling, drawing, and analytical
diagramming
• Use of representational techniques to docu-
ment design concepts, organization, spatial
order, and scale
• Ability to compile portfolio of original architec-
tural and three-dimensional design proposals
• Familiarity with historical and contemporary
precedents in the field
• Demonstrated written awareness of the his-
torical, technological, and cultural signifi-
cance of precedent works
• Familiarity with, and presentation and discus-
sion of, concepts related to form, organiza-
tion, and space making
• Delivery of oral and graphic presentations of
design concepts and proposals
• Reception of and response to design criti-
cism, and reflection of this response in re-
vised design documentation, as an integral
part of the design process
Entry to the Major
Admission
Students are admitted for fall quarter only. Ad-
mission 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 av-
erage, and are required to complete the prepa-
ration for the major courses, with grades of B
or better, before applying for admission. Trans-
fer students must have at least a 3.0 cumula-
tive GPA and are expected to complete the
preparation for the major courses during their
first year in residence. All applicants must sub-
mit a statement of interest and a three- to six-
page PDF of creative work. For more informa-
tion, consult with the undergraduate adviser.

Major Requirements
Preparation for the Major

The Major
Required: Architecture and Urban Design 121, 122, 123, 131, 132, 133, 141, 142, 143.

Architectural Studies BA

Admission
Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students are admitted each year. UCLA students may apply for admission in fall quarter of their second year in residence, must have at least a 3.0 cumulative grade-point average, and are required to complete the preparation for the major courses, with grades of B or better, before applying for admission. Transfer students must have at least a 3.0 cumulative GPA and are expected to complete the preparation for the major courses during their first year in residence. All applicants must submit a statement of interest and a three- to six-page PDF of creative work. For more information, consult with the undergraduate adviser.

Graduate Majors

Architectural Studies MA, PhD

Admission
Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students are admitted each year. UCLA students may apply for admission in fall quarter of their second year in residence, must have at least a 3.0 cumulative grade-point average, and are required to complete the preparation for the major courses, with grades of B or better, before applying for admission. Transfer students must have at least a 3.0 cumulative GPA and are expected to complete the preparation for the major courses during their first year in residence. All applicants must submit a statement of interest and a three- to six-page PDF of creative work. For more information, consult with the undergraduate adviser.
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 form using two- and threedimensional 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 basic architectural principles and problem solving. How to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of case-study analysis to uncover disciplinary issues within design problems and production of individual solutions to problems. Offered in summer only. Letter 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. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of case-study analysis to uncover disciplinary issues within design problems, as well as to produce individual solutions to those problems. Letter grading.


123. Studio III. (6) Studio, eight hours; outside study, 10 hours. Enforced requisites: courses 121, 122. Limited to Architectural Studies majors. Introduction to disciplinary issues, techniques, and organizations of landscape and how those can influence design of building and site. Material and formal characteristics of architectural relative to role those play in landscape. Introduction to issues of accessibility and egress as systems of movement. Structure as a component from site to site, construction, topography, climatology, accessibility, and their mutual interaction. Letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypotheses, 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 environments, including instruction in Web-based mapping applications, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural phenomena, applying skills students learned in 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 visual representations of complex data, becoming active participants in development of this new field. How to use suite of GIS and nongeography tools. Framing of creative projects to align with digital mapping technologies: What new questions can be asked and answered using these technologies? How does one reason, argue, and solve real-world problems through digital cultural mapping? Design, development, and implementation of student mapping-based research projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125C. Digital Cultural Mapping Core Course C: Summer Research. (4) Same as Ancient Near East M125C.) Laboratory; three hours; fieldwork, one hour. Enforced requisite: Ancient Near East 125B. Participation in collaborative geographic information systems (GIS) research project in humanities or social sciences using skills learned in courses 125A and M125B. Gathering and input of datasets from real-world sources, creating visual representations of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions given. Field or area 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. Offered in summer only. P/NP or letter grading.

CM130. Space and Place. (4) Same as World Arts and Cultures CM130.) Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, ordinary, anonymous, or vernacular built and built environments, which are built and used by members of small-scale, traditional, and transitional communities around world. Concurrently scheduled with course CM230. P/NP or letter grading.

131. Issues in Contemporary Design. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Investigation of relationships between culture and design through medium of digital cultural mapping. How architecture, urban conditions, and program. Exploring city and cultural life. Consideration of historical context and cultural genealogy of particular buildings and environments, material and economic conditions of building, and more. P/NP or letter grading.

132. Domestic Architecture: Critical History. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Investigation of relationships between culture and design through medium of digital cultural mapping. Historical patterns of domestic architecture, from communal living arrangements to contemporary metropolis through series of comparative urban explorations that begin in Los Angeles and extend to range of cities, including iconic examples from Asia to South America. Modern project can be seen in myriad forms across globe, from city and suburb, taken together, exist in complex conmging of aesthetic, political, spatial, economic, technologic, and social issues. Letter grading.

133. Modernism and Metropolis. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. Analysis of Gustave Eiffel’s Eiffel Tower, emergence of contemporary metropolis through series of comparative urban explorations that begin in Los Angeles and extend to range of cities, including iconic examples from Asia to South America. Modern project can be seen in myriad forms across globe, from city and suburb, taken together, exist in complex conmging of aesthetic, political, spatial, economic, technologic, and social issues. Letter grading.

141. Technology I: Projections. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing 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. Letter grading.

142. Technologies and Methods. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to construction systems and materials in relation 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. Letter grading.

143. Techne and Folding. (5) Lecture. 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. Letter grading.
143. Technology III: Digital Technology. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architecture Studies majors. Overview of three-dimensional computer-aided visualization concepts, teaching applications of AutoCAD and Maya and their use relative to two-dimensional design and visualization. Basic representation methods and tools and introduction to additional concepts required to dynamically interact with computer and to explore and understand complex and abstract situations. Preparation: three-dimensional computer aided design or computer science. 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 prepared research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

CM153. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Environment M201.) Lecture, three hours. Examination of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on conservation of energy, renewable energy, and appropriate use of resources, including water, materials, and land. Concurrently scheduled with course CM247A. Letter grading.


188C. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. Limited to lecture course with same title. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP 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 issues of spatial justice through scholarly and practical urban interventions, connect contemporary spatial methodologies introduced in Digital Humanities 30 and theoretical knowledge learned in Digital Humanities 151 to create urban humanist action-projects. Letter grading.

199. Directed Research or Senior Project in Architecture and Urban Design. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. 2 units in any major required. P/NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) (Same as Urban Planning M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues to architectural theory. Reading and primary texts serve as framework for understanding nature of speculative inquiry in architectural context. Letter grading.

220. Introduction to Computers. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to basic concepts, skills, and theoretical aspects of computer-aided architecture design microcomputer applications. Selected applications are common to all architectural software, including three-dimensional representation (i.e., painting, drafting, multimedia, hypermedia, and modeling). Letter grading.

221. Architectural Mediation I. (2) Lecture, two hours; laboratory, 90 minutes; outside study, three hours. Introduction to concepts, techniques, and theoretical discourses of digital modeling/drawing interfaces. Digital applications explored are broadly utilized in professional practices across all scales. Two- and three-dimensional output (i.e., drawing, models, multimedia, laser-cutting, computer numerical control milling). Letter grading.

222. Architectural Mediation II. (2) Lecture, two hours; laboratory, 90 minutes; outside study, three hours. Exploration of visual concepts and techniques in architectural image-making in context of its discursive histories and contemporary trajectories. Two-dimensional output (i.e., collages, montages, drawn-rendered images). Letter grading.

223. Architectural Mediation III. (2) Lecture, two hours; laboratory, 90 minutes; outside study, three hours. Exploration of advanced digital interfaces such as parametric software, agent-based simulation techniques in interactive mapping, analysis, time/behavior-based simulations and fabrications. Two- and three-dimensional output (i.e., animations, animation stills, multimedia, 3D printing, computer numerical control (CNC) milling). Letter grading.

226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and technical issues of computer visualization, including realistic rendering and animation. Letter grading.

227D. Design and Building Models. (4) Lecture, three hours. Review of range of information and knowledge potentially used in design. Knowledge representation, abstraction, and visualization. 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 beings and their created environments. Material included is on common, ordinary, anonymous, or vernacular nonbuilt environments, which are built and used by members of small-scale, traditional, and transitional communities. Course scheduled concurrently with course CM130. S/U or letter grading.

CM247A. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Urban Planning M291.) Lecture, three hours. Examination 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. Concurrently scheduled with course CM153. S/U or letter grading.

2571. Elements of Urban Design. (4) (Same as Urban Planning M2571.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socioeconomic, and technological frameworks of urban system and its dynamic interrelations. S/U or letter grading.

2572. Real Estate Development and Finance. (4) (Same as Urban Planning M272.) Lecture, two hours; workshop, two hours; outside study, eight hours. Requisites: course 2571 and Urban Planning M2575. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan packages, partnership, planning, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. S/U or letter grading.

2576. Roman Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural and urban developments during Roman period, from archaic age to late Empire. Built environments of ancient world investigated from various perspectives, with consideration of architectural, symbolizing, and viewing, as well as to technological, aesthetic, and political factors. S/U or letter grading.

260. Mediterranean Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural developments from 15th century to present focusing on Italian peninsula, and extending to entire Mediterranean basin. Analysis of individual structures, cities, and landscape designs to reveal changing cultural and technological values, as well as historical and iconographic content. S/U or letter grading.

289. Special Topics in Architecture and Urban Design. (2 to 4) Lecture, two hours; discussion, two hours. Selected academic topics initiated by students, student teams, or faculty and directed by faculty member. May be repeated for credit. S/U or letter grading.

291. Theory of Architectural Programming. (4) Lecture, three hours. Exploration of concepts and methods of architectural programming and its interrelation to design process; planning of design process; various techniques for determination of program content, basic conditions, resources, and constraints; identification of solution types for given situations. S/U or letter grading.

M293. Politics, Ideology, and Design. (4) (Same as Urban Planning M293.) Lecture, three hours. Exploration of cultural and political context of architecture and programming work. Examination of architectural and practice trends from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294A-294B. Environmental Psychology. (4-4) Lecture, three hours. Introduction to models, concepts, and theories. An investigation of human behavior, perception, and thought. Review of research results concerning space perception, cognitive mapping, preferences and attitudes toward environment, psychological effects of crowding and stress, and personal space and territoriality. S/U or letter grading.

M295. Introduction to Urban Humanities. (4) (Same as Urban Planning M295.) Seminar, six hours; studio, six hours. Core introduction to urban humanities. Analytical and descriptive methods of humanities paired with speculative and projective methods of architectural and urban design to better understand contemporary state of human environment. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

295. Proseminar: Critical Studies in Architectural Culture. (1 to 4) Seminar, to be arranged. Preparation: prerequisite for PhD and students to tradition of architectural theory, scholarship, and research to and current research directions and questions, through intensive reading and critical discussion. 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 instructor, who is responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or grading.

401. Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate courses 412, 413, 414 or MArch II student. Students may choose (through lottery) from several different projects fo-
cusing on special topics in architectural and urban de-

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate- and advanced-level stu-
dios for MArch I students; satisfactory completion of advanced-level studios and fourth-term standing for MArch II students. Students may choose (through lot-	ery) from several different advanced studio projects focusing on architectural and urban design to be offered by faculty members. Exit docu-
ment (analytic paper with graphic component that criti-
cally engaged design work) required at completion of course. Letter grading.

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

M404. Joint Planning/Architecture Studio. (4) (Same as Urban Planning M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Guest 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 resi-
dent leaders at Los Angeles City public housing devel-
opments. S/U or letter grading.

411. Introductory Design Studio. (6) Studio, 12 hours; outside study, six hours. Introduction to sketching, drawing, perspectives, CAD; Architectural composi-
tion is initiated in terms of its separate ele-
ments. After each is studied by means of manipulative exercise that allows for experimentation of its intrinsic possibilities, students undertake series of closely
tightly exercised exercises dealing with combining elements and then design small buildings. Letter grading.

412. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 411. Con-
centrated studio grading to projects exploring the architectural program in relation to design process and, particularly, implications of program on architec-
tural forms and concepts. In second phase, introd-
uction to and study in terms of its separate ele-
ments. 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, urban design, landscape design, building typology. Building design and site planning in relation to water, landforms, and plants in natural light, heat, and ventilation. Letter grading.

414. Major Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 413. De-
signed for second-year graduate students. Introduc-
tion to and exploration of planning and program-
ination, site planning, urban design, and integration of technical systems and architectural expression. Emphasis either on treatment in breadth of large-scale projects, or exploration in depth and detail of smaller-
scale projects. Students learn to integrate structure and environmental control and to present their ideas in graphic or model form. Letter grading.

415. Comprehensive Studio. (6) Studio, 12 hours; outside study, six hours. Requisite: course 414. Culmi-
nation of core sequence (courses 411 through 414), with focus on development phase of project. Technical concerns such as lighting, material innovation, sus-
tainability, construction documents, and building en-
volves to be considered critical to generation of ar-
chitectural form, integrated in design of single building project. Letter grading.

431. Structures I. (4) Lecture, three hours. Prepa-
basic algebra, geometry, trigonometry. Introduc-
tion to structuralbehavior and structural statics. Oper-
ations with forces and factors, both algebraically and
graphically. Equilibrium of force systems; polygon of forces, pin, hinge, and fixed joints, internal forces; axial force and bending moment. Reactions, stability, and statical determinacy. Determine frames. Plane trusses; analysis and design. S/U or letter grading.

432. Structures II. (4) Lecture, three hours. Requisite:
courses 431. Mechanics of structures and structural ele-
ments. Elastic materials: stress, strain, and stress-
strain relations. Theory of bending: curvature, stress and strain distributions, centroids, moments of inertia, resisting and plastic moments. Design of beams for bending, shear, and deflections. Tension members. In-

433. Structures III. (4) Lecture, three hours. Requi-
course 432, Introduction to statically indetermi-
nate analysis. Structural materials and loads. Wind loads: distribution with height, design for comfort, structure behavior under lateral loads. Steel construc-
tion and concepts for high-rise structures. Structural case studies in introduction to structural on earth-
quakes: seismology, magnitude, intensity, history. Seismic instrumentation. Case studies of recent earth-
quakes and damage. Earthquake design concepts and seismic code requirements. S/U or letter grading.

436. Introduction to Building Construction. (2) Lab-
oration, two hours; outside study, four hours. Introduc-
tion to construction techniques. Study of physical principles and materials for making architecture through series of exercises and field trips. Letter grading.

437. Building Climatology. (4) Lecture, four hours.
Preparation: basic physics. Design of buildings that speci-
fically respond to local climate; utilization of nat-
ural energies, human thermal comfort; sun motion and sun control devices; use of plant materials and land-
form to modify microclimate. S/U or letter grading.

441. Environmental Control Systems. (4) Lecture,
four hours. Design of mechanical systems necessary for functioning of large buildings: air handling, fire and life safety, plumbing, vertical and horizontal circula-
tion, communication and electrical power distribution, analysis of interaction of these systems and their inte-
grated effects on architectural form of building. S/U or letter grading.

442. Building Climatology. (4) Lecture, four hours. Prepara-
tion: basic physics. Design of buildings that speci-
fically respond to local climate; utilization of nat-
ural energies, human thermal comfort; sun motion and sun control devices; use of plant materials and land-
form to modify microclimate. S/U or letter grading.

443. Structures I. (4) Lecture, three hours. Prepara-
tion: basic algebra, geometry, trigonometry. Introduc-
tion to structural behavior and structural statics. Oper-
ations with forces and factors, both algebraically and
graphically. Equilibrium of force systems; polygon of forces, pin, hinge, and fixed joints, internal forces; axial force and bending moment. Reactions, stability, and statical determinacy. Determine frames. Plane trusses; analysis and design. S/U or letter grading.

497. Special Projects in Urban Design. (2 to 8) Tu-
torial, to be arranged. Projects initiated either by indi-
vidual students or student teams and directed by fac-
culty member. May be repeated for credit. S/U or letter grading.

498. Comprehensive Examination Seminar. (4) Seminar, three hours; outside study, nine hours. Sem-
inar intended to begin process of developing indepen-
dent proposal with related research and documenta-
tion that moves toward production of final document or book for each project. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be ar-
ranged. Preparation: consent of UCLA graduate ad-
viser 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 Research and Study in Arch-
itecture and Urban Design. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. Preparation in Architecture/Urban Design for Master’s Thesis. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. PhD Dissertation Research in Architecture. (2 to 8) Tutorial, to be arranged. Limited to doctoral stu-
dents. May be repeated for credit. S/U grading.

ART
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Roger R. Herman, MFA
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Barbara Kruger
Paul D. McCarthy, MFA
Lari G. Pittman, MFA
Charles R. Ray, MFA
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Rebecca J. Morris, MFA

Anna M. Sew Hoy, MFA
The Art major has the following learning outcomes:

- Familiarity with and competency in multiple techniques and media, and a level of proficiency utilizing particular media appropriate to advanced studio projects
- Development of a body of original artwork
- Familiarity with global historical precedents for, and issues in, contemporary art
- Understanding of terms and concepts relevant to contemporary art discourse
- Ability to effectively analyze works of art through studio critique

Requirements

Preparation for the Major


The Major

Required: A minimum of nine upper-division courses, including Art 132, six courses from at least four of the following studio areas of which at least one must be designated with an A: 130 or 130A, 133 or 133A, 137 or 137A, 140, 145 or 145A, 147 or 147A, 148 or 148A, 149 or 149A, one course from Art History M110A through 185, one capstone senior studio course (Art 150), and 8 units of art electives.

Policies

The Major

Each course applied toward major requirements must be taken for a letter grade, with the exception of Art 190, 193, and 195, which are offered only on a Passed/Not Passed grading basis. Of those, no more than 4 units total may be applied toward the upper-division art elective requirement.

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 utilizing particular media appropriate to advanced-level studio projects. Graduates are expected to demonstrate familiarity with global 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:

- Ability to effectively analyze works of art through studio critique
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 visualization. May be repeated for maximum of 20 units. Letter grading.

130A. Advanced Drawing: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 1A. Varied approaches to drawing media and content to develop students' technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 130 and 130A 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 writing and artistic frameworks from late 19th century to present. Introduction to elements of Marxism, critical theory, feminist and queer theory, indigenous critique, disability studies, black radical tradition, decolonial and postcolonial writings. 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 subjects to further develop students' technical and expressive tools to understand and implement their ideas. May be repeated for maximum of 20 units. Letter grading.

133A. Advanced Painting: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11A. Varied approaches to painting media and content to develop students' technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 133A may be repeated for maximum of 20 units. Letter grading.

137. Advanced New Genres. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Emphasis to be selected by faculty members from one of the following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for maximum of 20 units. Letter grading.

137A. Advanced New Genre: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11C. Selected studies in fine printmaking, historical and contemporary; woodcut, etching and engraving, lithography, silk screen, mixed media. May be repeated for maximum of 20 units. Letter grading.

140. Advanced Printmaking. (5) Studio, eight hours; seven hours arranged. Requisite: course 11C. Selected studies in fine printmaking, historical and contemporary; woodcut, etching and engraving, lithography, silk screen, mixed media. May be repeated for maximum of 20 units. Letter grading.

145. Advanced Sculpture. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Selected studies in sculpture, historical and contemporary; modeling, carving, casting, welding, and other media; forms in space, including installations and nonstudio pieces. May be repeated for maximum of 20 units. Letter grading.

145A. Advanced Sculpture: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Varied approaches and contemporary sculpture that highlights its social impact and cultural content. Themed lectures and studio assignments develop students' technical, expressive, and conceptual tools for contemporary practice that addresses 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.

147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Selected projects in photography and related media, concentrating on development of individual students' artwork. Studio emphasis with special topics in theory and critical analysis. 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 and related media, concentrating on development of individual students' artwork. Studio emphasis with special topics in theory and critical analysis. May be repeated for maximum of 20 units. Letter grading.

148. Advanced Ceramics. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Selected studies in ceramics, with emphasis on individualized creative experimentation with materials and techniques produced in course. Methods and processes to be identified from range of possibilities, including handforming and modeling, preparation and use of molds, slipcasting, and use of potter's wheel. May be repeated for maximum of 20 units. Letter grading.

148A. Advanced Ceramics: Topics in Antiracism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Varied approaches to ceramic media and content to develop students' technical, expressive, and conceptual tools to understand and explore antiracism, 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 that advance anti-racism, equity, diversity, and inclusion. Studio 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 analysis and critique of individual creative work and ideas. Letter grading.

150A. Senior Seminar. (4) Seminar, four hours. Seminar for junior/senior Art majors. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminism, psychoanalysis, postmodernism, anti-racism, equity, diversity, and inclusion. Aspects of projects, including medium, method, and presentation. Combination of courses 149 and 149A may be repeated for maximum of 20 units. 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 areas of study from structuralism, deconstruction, feminism, psychoanalysis, postmodernism, anti-racism, equity, diversity, and inclusion. Aspects of projects, including medium, method, and presentation. Combination of courses 149 and 149A may be repeated for maximum of 20 units. Letter grading.

C181. Exhibition and System. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Examination of temporary: woodcut, etching and engraving, lithography, silk screen, mixed media. May be repeated for credit. Concurrently scheduled with course C280. Letter grading.

C182. Exhibitions and Public Programs. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Preparation 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. Concurrently scheduled with course C281. Letter grading.

C183. Special Topics in Art. (2 or 4) Seminar, two to four hours. Preparation: at least one course from 100 through 150. Preparation 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. Concurrently scheduled with course C282. Letter grading.

M184. Chican@ Art and Artists. (4) Same as Chicano and Central American Studies M175 and World Arts and Cultures M128.) Lecture, four hours. Introduction to Chican@ art and artists. Examination of Chican@ aesthetic. Chican@ artists have developed unique experience and identity as artists and Chican@. Letter grading.
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M185. Whose Monument Where: Course on Public Art. (4) (Same as Chicano/a and Central American Studies M185 and World Arts and Cultures M126.) Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Examination of public monuments as basis for cultural insight and critique of American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, 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.

M186A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Same as Chicano/a and Central American Studies M186A and World Arts and Cultures M125A.) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. P/NP or letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Intermediate Muralism and Community Development. (4-4-2) (Same as Chicano/a and Central American Studies M186AL-M186BL and World Arts and Cultures M125AL-M125BL-M125CL) Course M186AL is requisite to M186BL, which is requisite to M186CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, where students work in community-based setting. Open to students during scheduled hours with laboratory tech support, it offers instruction as students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M186AL. Beginning. Laboratory, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186BL. M186BL. Advanced. Laboratory, two hours. Corequisite: course M186AL.


M186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Chicano/a and Central American Studies M186C and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186BL. Corequisite: course M186CL. M186CL. Advanced. Special topics 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.

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.

C188A. Individual Study 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 pre-seminar research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in research 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 to honors credit if eligible. Honors content noted on transcript. P/NP or letter grading.

190. Studio/Research Colloquia in Art. (1) Seminar, three hours. Corequisite: course 197 or 198. Limited to juniors/seniors. Discussion of students undertaking supervised tutorial studio projects or 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 maximum of 4 units. P/NP grading.

193. Journal Club Seminars: Current Topics in Art. (1) Seminar, three hours. Limited to junior/senior majors. Discussion of selected current exhibitions, visiting artist lectures, screenings, and readings in field. May be repeated for credit. P/NP grading.

195. Community Internships in Art. (2 to 4) Tutorial, six to 12 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.


198. Honors Research in Art. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average overall, 3.5 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Development and completion of comprehensive research or studio project under direct supervision of faculty member. 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 alternative media, including 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 particular discipline. Individual studio visits and consultation. 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 artwork. Studio emphasis with 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/discussion of students’ research. Additional tutorial meetings by arrangement 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 traditional and experimental processes and intellectual approaches to art practice utilizing ceramic media. Emphasis is 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. Material focused 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.

280. Seminar: Art. (4) Seminar, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on individual, 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 C180. Letter grading.

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

282. 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.

283. 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.
Overview

The Department of Art History endorses an interdisciplinary and intercultural approach to art history of all periods and places. By thinking across current categories and boundaries and even critically interrogating art history itself, students are encouraged to question the canon, rethink the relationship between margins and centers, and practice a socially and politically responsible art history.

The rich and varied art resources available at UCLA and throughout Southern California offer students extraordinary opportunities to supplement the formal curriculum.

Undergraduate Major

Art History BA

Capstone Program

The Art History major is a designated capstone program. Students have options for completing a senior honors thesis, a directed independent study, an advanced undergraduate seminar, a museum studies internship, a research assistantship, or a faculty-approved upper-division course that includes additional coursework culminating in the completion of a capstone paper. Through their capstone work, students are expected to conceive and execute a research or creative project; identify and evaluate documentation relevant to the discipline; develop an enhanced capacity for writing and research, critical and analytical thinking, and competent familiarity with art historical methodologies; and identify and articulate these arguments within art historical discourse and areas of specialization. The capstone experience also enables students to develop an enriched understanding of the foundations of the discipline, as well as the current landscape of the field.

Learning Outcomes

The Art History major has the following learning outcomes:

- Accurate identification of major works of art within periods, cultures, or genres comprising various art history subfields
- Analysis of individual works of art using appropriate art history terminology, and placement of them in their aesthetic, historical, and cultural contexts
- 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

Entry to the Major

Transfer Students

Transfer applicants to the Art History major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two art history courses in ancient, Renaissance and baroque, medieval, or modern art and two courses in African, Asian, or pre-Columbian art.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Two courses from Art History 20 through 25 and two courses from 27 through 31. It is strongly recommended that the courses be taken prior to enrollment in upper-division courses. Some of these courses serve as requisites to certain upper-division courses.

The Major

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


3. Additional art history electives selected from courses 100 through 185 (20 units minimum); courses 196, 197A, and 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.

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 on an in-depth supervised research and writing project.

Students must complete Art History 198A and 198B.

Policies

The Major
Each course must be taken for a letter grade.

Honors Program
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 standing with an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student affairs officer in 206B Dodd Hall, 310-825-3992. Students are advised to declare the minor early and meet with the student affairs officer to plan a coherent program.

The Minor
Required Lower-Division Courses (15 units):


3. One additional art history elective selected from courses 100 through 185; course 197A may also be included.

Policies
A minimum of 20 units applied toward the minor requirements must be completed in addition to units applied toward major requirements or another minor.

Graduate Major

Art History MA, PhD

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
21. 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 economic, social, and political life have produced modern built environment that is both diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give regions, cultures, and historical periods their particular qualities. Topics include architectural and urban ramiﬁcations of modern self-consciousness, nationalism and internationalism, industrialism, colonialism and anticolonialism, and new art and architectural theories. P/NP or letter grading.

25. Museum Studies. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to study of museums in their social and historical contexts. Examination of debates about museum’s role in society through case studies and analysis of exhibitions in range of museums including art, history, and ethnographic museums. P/NP or letter grading.
27. Art and Architecture of Ancient Americas. (5) Lecture, three hours; discussion, one hour; museum field trips. Introduction to art, architecture, and urbanism of Americas (North to South) from earliest settlement until AD 1450. Analysis of variety of media within their historical and cultural context. P/NP or letter grading.

28. Arts of Africa. (5) Lecture, three hours; discussion, one hour; museum field trips. Introduction to arts and architecture of Africa. Examination of social and historical contexts of their production. Introduction to body of information within framework of conceptual problem through series of case studies. P/NP or letter grading.

29. Chinese Art. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to Chinese art, covering all major periods from Neolithic to modern age. Presentation of monuments as well as artistic emphasis of various media in their social and historical contexts. P/NP or letter grading.

30. Arts of Japan. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to art, architecture, and material culture of Japan, from earliest records to present. P/NP or letter grading.

31. Art of India and Southeast Asia. (5) Lecture, three hours; discussion, one hour; museum field trips. Discussion of selection of monuments and objects from Indus Valley civilization and Southeast Asia using key historical, cultural, and religious concepts. Analysis of each monument or object in detail, with their relationships compared and contrasted. P/NP or letter grading.

88. Lower-Division Seminars. (4) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

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 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.

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

100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requires: three courses from 20 through 31. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts. Letter grading.

M110A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) Same as Ancient Near East CM101A.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic and Old Kingdom. May be repeated for credit with consent of instructor. P/NP or letter grading.

M110B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as Ancient Near East CM101B.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts 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 cult buildings in all of Egypt, and divides traditional of artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of Amenhotep III’s eastern and western banks through festival processions, chronological changes in function and form of Theban temples through time, and statutory program of individual temples. P/NP or letter grading.

M110D. Art and Death in Ancient Egypt. (4) (Same as Ancient Near East M116.) Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife beliefs in ancient Egypt, as well as in ancient Near East and Nubia, with focus on ancient visual materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

M111. Minoan Art and Archaeology. (4) (Same as Classics M153A.) Lecture, three hours. Requires: 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 M153C.) Lecture, four hours. Requires: 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. Requires: 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. Requires: course 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from middle of 6th century BC, including transmission of Greek art forms to Romans. P/NP or letter grading.

M113A. Etruscan Art and Archaeology. (4) (Same as Classics M153E.) Lecture, three hours. Requires: course 20 or Classics 20 or 51B. Art of Italic peninsula from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

M113B. Roman Art and Archaeology. (4) (Same as Classics M153G.) Lecture, three hours. Requires: course 20 or Classics 20 or 51B. Art of Rome and its 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. Requires: course 20 or Classics 20 or 51B. Art of Roman Empire from 2nd through 4th century (AD). P/NP or letter grading.

M114A-M114B-M114C. Classical Archaeology. (4-6-4) (Same as Classics M153J-M133-J14.) Lecture, three hours. Requires: one course from Classics 10, 20, 51A, 51B, or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Aegean, Greek, and Roman architecture, sculpture, and painting. May be repeated for credit with department consent. P/NP or letter grading.


C114D. Selected Topics in Ancient Art. (4) Lecture, three hours. Variable topics in ancient art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C214D. P/NP or letter grading.

C115A. Late Antique Art and Archaeology. (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.


C116B. 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.

C117A. Medieval Archaeology. (4) Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C217A. P/NP or letter grading.

C117B. Selected Topics in Medieval Art. (4) Lecture, three hours. Variable topics in medieval art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C217B. P/NP or letter grading.

C118A. Medieval Armenian Art. (4) (Same as Armenian M172.) Lecture, three hours. Examination of cultural and historical impact of Armenian miniature paintings, P/NP or letter grading.

C118B. Armenian Painting, 17th to 20th Century. (4) (Same as Armenian M173.) Lecture, three hours. Overview of development of modern Armenian painting out of its matrix in 17th and 18th centuries. P/NP or letter grading.

C118C. Selected Topics in Armenian Art. (4) Lecture, three hours. Variable topics in Armenian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C218. P/NP or letter grading.

C119A. Western Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers to Spain, 7th to 16th century. P/NP or letter grading.

C119B. Eastern Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers through Afghanistan and parts of central Asia; Ottoman Empire. P/NP or letter grading.

C121A. Introduction to Islamic Archaeology. (4) (Same as Islamic Studies M111 and Middle Eastern Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian port, broad focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformation experienced from 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.
M119D. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Archaeology M112, Islamic Studies M112, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to Islamic legend, theThose who continue to believe from such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population grew and the city became largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Survey of archaeological remains and standing architecture from 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. Selected Topics in Islamic Art. (4) Lecture, three hours. Variable topics in Islamic art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C220A. P/NP or letter grading.

121A. Italian Renaissance Art of 14th Century. (4) Lecture, three hours. Art and architecture of 14th century. P/NP or letter grading.


121D. Late Renaissance/Baroque: Counter-Reformation. (4) Lecture, three hours. Requirements: course 22. Painting, sculpture, and architecture of late 16th and early 17th centuries considered in context of Counter-Reformation. P/NP or letter grading.


125A. Southern Baroque Art. (4) Lecture, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C225. P/NP or letter grading.

125B. Northern Baroque Art. (4) Lecture, three hours. Requirements: course C125A. Art and architecture of Northern Europe, 16th to late 17th century. P/NP or letter grading.

126B. Selected Topics in Early Modern Art. (4) Lecture, three hours. Variable topics in early modern art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C226. P/NP or letter grading.

127A. European Art of 17th and 18th Centuries. (4) Lecture, three hours. Requirements: one course from course 206, 207, 208, 209, 211. Examination of art and visual culture of 17th and 18th centuries in light of political and intellectual developments. Special emphasis on effects of royal courts, colonialism, and revolution. P/NP or letter grading.


127C. Cultural and Intellectual History of Modern Europe, 19th Century. (4) (Same as History M122E.) Lecture, three hours; discussion, one hour (when scheduled). Development and influence of David, Ingres, and Delacroix. P/NP or letter grading.


129A. Modern Art, 1900 to 1950. (4) Lecture, three hours. Inquiry into 20th-century modernism from Fauvism to abstract expressionism. Topics include primitivism, gender, and sexuality in modernist art; origins of abstraction, collage, photomontage, and ready-made; rise of automatism and chance procedures; art, utopia, and political revolution; antimodernism and fascism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrently scheduled with course C229B. P/NP or letter grading.

129B. Dada, 1915 to 1923. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to modernism and historical avant-garde of early 20th century, tracing in detail emergence of Dada avant-garde in its various geographical locales during and after World War I. Visual art, literature, film, and performance addressed, with special attention to invention of series of avant-garde strategies crucial to Dada: ready-made, chance procedures, mechanical drawing, and photomontage. Concurrently scheduled with course C229B. P/NP or letter grading.

130. Selected Topics in Modern Art. (4) Lecture, three hours. Requirements: course 23. Changing topics in modern art (post-1970) that reflect interests of individual regular and/or visiting faculty members. May be repeated once for credit. Concurrently scheduled with course C230. P/NP or letter grading.


132. Selected Topics in Contemporary Art. (4) Lecture, three hours. Requirements: 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.

133A. American Art before Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period through Civil War. Concurrently scheduled with course C233A. P/NP or letter grading.

133B. 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.

133C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to 1945. Concurrently scheduled with course C233C. P/NP or letter grading.

133D. Architecture in U.S. (4) Lecture, three hours; discussion, one hour. Introduction to architecture built in U.S. over last 5,000 years. Architecture as vehicle to major themes in history of American architecture, and personal and aesthetic pursuit. P/NP or letter grading.

CM135A. 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 and critical commentary about major features of African American life and society. Concurrently scheduled with course CM235A. P/NP or letter grading.

CM135B. 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.

C136A. 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.

137. Arts of Native North America. (4) Lecture, three hours. Survey of painting, 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 Chicana/o and Central American Studies M137.) Lecture, three hours. Requirements: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 3140 BC 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. Requirements: course 27. Painting, sculpture, architecture, and other arts of ancient 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 Americas. (4) Lecture, three hours. Variable 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 C240. P/NP or letter grading.

CM141. Colonial Latin American Art. (4) (Formerly numbered C141.) (Same as Chicana/o and Central American Studies M161B.) Lecture, three hours; discussion, one hour (when scheduled). Art and architecture of colonial Americas from 16th to 18th century. Concurrently scheduled with course C241. 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, indi-
gerism, 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). Survey of African art from about 200 CE to present, with emphasis on cultural, social, and historical contexts of architecture, gender, and space. Not open to freshmen. Concurrently scheduled with course C242B. P/NP or letter grading.

143. 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. Concurrently scheduled with course C242A. P/NP or letter grading.


C145A. Architecture and Urbanism in Africa. (4) Lecture, three hours. Survey of African built environment at various moments in time and in different places from about 200 CE to present, with emphasis on cultural, social, and historical contexts of architecture, gender, and space. Not open to freshmen. Concurrently scheduled with course C242A. 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, status of African artist, global reception of contemporary African art, and very definitions of contemporary African art. 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.


C148B. 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 C248B. P/NP or letter grading.

C148C. 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 C248C. P/NP or letter grading.


C148E. Art in Modern China. (4) Lecture, three hours. Concurrently scheduled with course C248E. P/NP or letter grading.


C148G. 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 C248G. P/NP or letter grading.

C149. 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 C249A. 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.

152A. Art and Architecture of China. 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 technological, stylistic, religious, cultural, and sociopolitical contexts. Examination of construction of concepts of history and art under colonial and nationalist perspectives, 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 diversity of topics and social status of artists during Choson dynasty (1392 to 1910). Concurrently scheduled with course C252B. P/NP or letter grading.

C152C. History of Korean Ceramics. (4) Lecture, three hours. Limited to juniors/seniors. History of Korean ceramics from Neolithic period to 19th century, with special emphasis on archaeological and stylistic developments. Concurrently scheduled with course C252C. P/NP or letter grading.

C152D. History of Korean Buddhist Art. (4) Lecture, three hours. Limited to juniors. History of Korean 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 C252D. P/NP or letter grading.

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

154A. Early Art of India. (4) Lecture, three hours. Not open to freshmen. Survey of Indian art from Indus Valley cultures to 10th to 11th century. Decline of Buddhist art, last efforts of artistic patronage to:image, Hindu backgrounds of arts. P/NP or letter grading.

154B. Later Art of India. (4) Lecture, three hours. Not open to freshmen. Survey of Indian art from 10th to 19th century. Decline of Buddhist art, last efforts of artistic patronage to:image, Hindu backgrounds of arts. P/NP or letter grading.

C154C. Advanced Indian Art. (4) Lecture, three hours. Required course 154A. Study in Indian art. Concurrently scheduled with course C254A. P/NP or letter grading.

C154D. Modern and Contemporary South Asian Art. (4) Lecture, three hours; discussion, one hour (when scheduled). Topics in 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.

156. Arts of Southeast Asia. (4) Lecture, three hours. Not open to freshmen. Southeast Asian art from its beginning in prehistory through 19th century. Study of art and society from Cambodia, Thailand, Vietnam, Malaysia, Indonesia, Philippines, and others. P/NP or letter grading.

C158A. Selected Topics in Asian Arts and Architecture. (4) Lecture, three hours. Variable topics in Asian art 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 centuries. P/NP or letter grading.

C169. Selected Topics in Architectural History. (4) Lecture, three hours. Variable topics in architectural history that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C269. P/NP or letter grading.

C170A. Museum Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to museum 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, evaluation of published and distributed materials, and of museum and gallery institutions, practices, and policies. Concurrently scheduled with course C270B. Letter grading.

C171. Selected Topics in Museum Studies. (4) Lecture, 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 C271. P/NP or letter grading.

C172A. Preservation of Art. (4) Lecture, three hours. Designed for Anthropology and Art History majors and other juniors/seniors. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as the role that art historians are involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environment contexts. Materials and practices 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 landscapes. 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 C272A. P/NP or letter grading.

C172B. Art: Fakes, Forgeries, and Authenticity. (4) Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity and description of many examples of problems related to this concept in series of discussions based on ob-
sition: Creating Fowler and Virtual Exhibit. (4) - C272C. P/NP or letter grading.

- C270. Art Historical Theories and Methodologies. (4) - Tutorial, to be arranged. Preparation: completion of minimum of four upper-division art history courses with 3.5 departmental average and overall 3.0 grade-point average. Limited to junior/senior Art History and History/Art History majors. Two-term independent research project under supervision of appropriate faculty member, culminating in a major thesis. May be repeated for credit. Individual contract required. P/NP or letter grading.

- C218A. Individual Studies in Art History. (2 to 4) - Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior Art History majors. Preparation: completion of one year of language, one course or one module in field. May be repeated for credit. Individual contract required. P/NP or letter grading.

- C217B. Late Byzantine Art and Architecture. (4) - Seminar, three hours. Study of late Byzantine art and architecture. May be repeated for credit with consent of adviser. S/U or letter grading.

- C217A. Medieval Archaeology. (4) - Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C117A. S/U or letter grading.

- C217B. Selected Topics in Medieval Art. (4) - Lecture, three hours. Variable topic. May be repeated for credit with consent of adviser. S/U or letter grading.

- C217D. Byzantine Art, Architecture, and Archaeology. (4) - Seminar, two hours. Selected topics in Byzantine art and architecture. May be repeated for credit with consent of adviser. S/U or letter grading.

- C218. Selected Topics in Armenian Art. (4) - Lecture, three hours. Variable topic. May be repeated for credit with consent of adviser. S/U or letter grading.


- 206. Egypt Art. (4) - Seminar, two hours. Requires: courses M110A, M110B, M111. Art in Egypt during Late period and Greco-Roman period. Students should be ready to prepare for each meeting briefing of topic from archaeological memoirs, not to exceed 10 minutes. Some lectures may be repeated for credit with consent of adviser. S/U or letter grading.

- 212A. Topics in Aegean Art. (4) - Seminar, two hours. Requires: courses M111, M112A. Art and architecture of Ancient Bronze Age, Monuments or theoretical problems related to art and culture of Crete, Greece, Cyclades, or Western Anatolia. May be repeated for credit with consent of adviser. S/U or letter grading.

- 212B. Topics in Classical Art. (4) - Seminar, two to three hours. Studies in Parthian art, Site-by-site survey of Near East (Afghanistan, Iran, Iraq, Syria) during period of Greek and Parthian control. May be repeated for credit with consent of adviser. S/U or letter grading.

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

- 214D. 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 C114D. S/U or letter grading.

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


- 216B. 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.

- 217A. Medieval Archaeology. (4) - Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C117A. S/U or letter grading.

- 217B. Selected Topics in Medieval Art. (4) - Lecture, three hours. Variable topic. May be repeated for credit with consent of adviser. 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. May be repeated for credit with consent of adviser. S/U or letter grading.
members. May be repeated twice for credit. Concurrently scheduled with course C112C. S/U or letter grading.

C220A. Selected Topics in Islamic Art. (4) Lecture, three hours. 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) Lecture, three hours. 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.

C221. Italian Renaissance Art. (4) Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardos 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.

C222. 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 late 17th century. Concurrently scheduled with course C225A. S/U or letter grading.

C226. 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.

C227. 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.

C228A-C228B-C228C. History of Photography. (4–6) Concurrently scheduled with courses C228A-C228B-C228C. S/U or letter grading. C228A. 1839 to 1910. Lecture, three hours. Study of origin, social functions, and development of photography in 19th and early 20th centuries, from heliography to the daguerreotype. C228B. 1910 to Present. Lecture, three hours; discussion, one hour. History of photography in 20th century, with special emphasis on the project of avant-garde and its role in formation of postmodern aesthetic. C228C. Selected Topics. Lecture, three hours. Variable topics in history of photography that reflect interests of individual regular and/or visiting faculty members.

C228D. History and Theory of Photography. (4) Seminar, three hours. Selected topics in photography history, criticism, and theory. S/U or letter grading.

C229A. Modern Art, 1900 to 1950. (4) Lecture, three hours; discussion, one hour. Inquiry into 20th-century modernism from Fauvism to abstract expressionism. Topics include primitivism, gender, and sexuality in modernist art; origins of abstraction, collage, photo-montage, and ready-made; rise of automaticity and chance procedures; art, utopia, and political revolution; antimodernism and fascism; mass culture, machine paradigm, and work of art in age of mechanical reproduction. Concurrently scheduled with course C212A. S/U or letter grading.

C229B. Dada, 1915 to 1923. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to modernist avant-garde, with special attention to invention of avant-garde strategies crucial to Dada: ready-made, chance procedures, mechanical drawing, and photomontage. Concurrently scheduled with course C129B. S/U or letter grading.

C229C. Surrealism, 1924 to 1939. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of art, literature, and film associated with surrealism movement in France, with special attention to dissident surrealism of writer and philosophers Georges Bataille, André Breton, and René Clair. Focus intersects with surrealisms engagement with liveness of things, with psychoanalytic. Concurrently scheduled with course C129C. S/U or letter grading.

C230A. European Art, 1700 to 1900. (4) Seminar, two hours. May be repeated for credit with consent of adviser. S/U or letter grading.

M230B-M230C. Seminars: Modern European History, (4–4) (Same as History M230A-M230B) Seminar, three hours. Course M230B is enforced prerequisite for course M230C. May be repeated for credit with consent of adviser. In Progress (M230B) and letter (M230C) grading.

C230B. Modern Art, 1900 to 1939. (4) Seminar, two hours. Changing topics in modern art (including illustration and other popular forms) that reflect interests of particular faculty members. Political and economic factors affecting arts of France and Germany at various times. May be repeated for credit with consent of adviser. S/U or letter grading.


C232. Contemporary Art. (4) Seminar, three hours. Selected topics in contemporary art, criticism, and theory. 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 through Civil War. 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.

C234. American Art. (4) Seminar, two hours. Required: 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. African American Art. (4) Same as African American Studies CM235A. Lecture, three hours. In-depth exploration of African American artists from the 19th century to the late 20th century, focusing on the development of a distinctive body of art that reflects the experiences and struggles of African Americans. Concurrently scheduled with course CM135A. S/U or letter grading.

C236. Topics in African American Art. (4) Same as African American Studies M236. Seminar, three hours. Required: course C235A or M235B. Topics in African American art from 18th century to present. May be repeated for credit with consent of graduate adviser. S/U or letter grading.


C239A. Maya Art and Architecture. (4) Lecture, three hours. Required: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 2000 BC to 1697 AD, 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. Required: course 27. Pre-Hispanic 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 C139B. S/U or letter grading.

C240A. Selected Topics in Arts of Indigenous Americas. (4) Lecture, three hours. Variable 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 C140A. S/U or letter grading.


C241. Colonial Latin American Art. (4) Lecture, three hours; discussion, one hour. The arts and architecture of colonial Americas from 16th to 18th century, covering the period of their political and cultural fragmentation during Spanish occupation of Andes (1532 to 1824). Concurrently scheduled with course CM141. S/U or letter grading.

C242A. Mexican Art in Modern Age. (4) Lecture, three hours. Mexican art from the modernist and postmodernist periods, focusing on the contributions of both national and international artists to contemporary Mexican art, with an emphasis on the dual role of Mexico as a site of both national and international artistic production. Concurrently scheduled with course C142A. S/U or letter grading.

C242B. Latin American Art of 20th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Variable topics in Latin American art and architecture of selected Latin American countries, including both modernist and postmodernist forms, considered in context of social and political conflicts, 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 Central American Studies M233. Seminar, three hours. Emphasis on current research, teaching, and museum practice in contemporary art of Americas, with focus on hemispheric and transnational approaches. Study of influential theoretical texts from literary studies and critical examination of recent publications in arts, including museum exhibition catalog, as hemispheric and transnational approach to contemporary Latin American art is posited. Focus intersects with other related topics, including art post-1968; comparative indigenities in

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America, art, globalism, and biennials; decolonial counter narratives; transnational feminisms; and New American art. (3) Lecture, three hours. Examination of classical painting of imperial China through the theory and practice. Concurrently scheduled with course C148E. S/U or 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 2000 b.c. to present, 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 means of the art object, status of African artist, global reception of contemporary African art, and 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; discussion, one hour (when scheduled). Variable topics in African art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C146A. S/U or letter grading.

247. 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 architecture, painting, sculpture, and various luxury industries (lacquer, porcelain, textiles, jade, bronze, furniture, wood and bamboo carvings) 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 emphasis on changing means of the art object, status of Chinese artist, global reception of Chinese contemporary art, and definitions of Chinese contemporary art. Concurrently scheduled with course C148E. S/U or letter grading.

C249A. Advanced Chinese Painting. (4) Lecture, three hours. Examination of classical painting of imperial China through the theory and practice. Concurrently scheduled with course C148F. S/U or letter grading.

C249G. 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.

C249H. Selected Topics in Chinese Art. (4) Lecture, three hours. 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 C149. S/U or letter grading.

C249I. Chinese Art. (4) Seminar, three hours. Advanced studies in secular and religious artistic traditions of China. May be repeated for credit with consent of advisor. 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 C151. S/U or letter grading.

251B. Japanese Art. (4) Lecture, three hours. Advanced studies in secular and religious artistic traditions of Japan. May be repeated for credit with consent of advisor. S/U or letter grading.

C252A. History of Korean Painting. (4) Lecture, three hours. Korean painting history from Three Kingdoms period to 19th century, examined within 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 Buddhist iconography and relationship between sculpture, painting, and architecture. Concurrently scheduled with course C152D. S/U or letter grading.

C253A. Selected Topics in Korean Art. (4) Lecture, three hours. Three hours. Studies of Korean art under different artistic historical perspectives, methods, and theories. Individual studies, with emphasis on professional presentations. Group projects, may be repeated twice for credit. Concurrently scheduled with course C153. S/U or letter grading.

C253B. Selected Topics in Korean Art. (4) Lecture, three hours. Three hours. Three hours. Three hours. Studies of Korean art under different artistic historical perspectives, methods, and theories. Individual studies, with emphasis on professional presentations. Group projects, may be repeated twice for credit. Concurrently scheduled with course C153. S/U or letter grading.

C254A. Advanced Indian Art. (4) Lecture, three hours. Requisite: course C154A or consent of instructor. Concurrently scheduled with course C154C. S/U or letter grading.

C254B. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to present. Letter grading.

C255A. Selected Topics in South and Southeast Asian Art. (4) Lecture, three hours. Variable topics in South and Southeast Asian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C155. S/U or letter grading.

255B. Indian Art. (4) Lecture, two hours. Advanced studio seminar in the creation of works inspired by South Asian art from ancient wall paintings to Statue of Liberty. Discussion of issues of preservation and restoration of these 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 heritage materials may have been treated differently according to those values. Concurrently scheduled with course C172A. S/U or letter grading.

C256. Principles, Practice, and Ethics in Conservation of Cultural Heritage. (4) (Formerly numbered 272B.) (Same as Conservation M221.) Seminar, three hours. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials 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 heritage materials may have been treated differently according to those values.

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
to this concept in series of discussions based on objects from a 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 antiquities and traditional African arts. Background of art restoration and art conservation discussed in relation to authenticity and technical studies. Scientific tools that form basis of another kind of connoisseurship described in terms of dating techniques that can be applied directly to works of art and technical methods by which material constituents of works of art are studied. Concurrently scheduled with course C172B. S/U or letter grading.

273. Studies in Materials and Production of Works. (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, conservation, 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 appearance 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. 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 Art History. (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 MA or PhD course requirements. S/U grading.

496. Teaching Technology. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Designed for graduate students. Introduction to technology support available to new departmental teaching assistants. Topics include exploring functions of teaching assistant archive, CCLE, MyUCLA, Gradebook, and Turnitin; and ways to efficiently use these tools. Introduces ways to lesson planning and ways to establish effective teaching strategies in and out of classroom. May not be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 6) 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 LASC, 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 MA Comprehensive Examination or PhD Qualifying Examination. (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
   (3) Lecture, four hours; discussion, one hour; field trip, three hours; outside study, seven hours. Through series of direct encounters with art and artists across global range of practices, course equips students with kinds of critical skills that enhance their understanding of, and sharpen their appetite for, wide range of artistic practices. Attendance at performance/art events outside normal class schedule is mandatory. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 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 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 theme or themes common to coursework and diverse fields of knowledge
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 Lai, 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)
Vinit Mukhiya, PhD
Kyeyoung 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. Umemoto, PhD
David K. Yoo, PhD
Min Zhou, PhD

Professors Emeriti
Marjorie Kagawa-Singer, RN, PhD
Snehendu B. Kar, DrPH, MSc
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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 N. Guatami, PhD
Cindy C. Sangalang, PhD
Lee Ann S. Wang, PhD

Adjunct Professor
Benjamin K.P. Woo, MD

Adjunct Associate Professor
Tritia Toyota, PhD

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 Pilipino 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 excellence of the faculty; and prepares students either for advanced graduate studies or for life after college as artists, citizens, entrepreneurs, political leaders, and professionals.

As an interdisciplinary field, the Asian American Studies curriculum examines the contemporary realities, diverse experiences, and histories of Asian and Pacific Islander Americans. The topical range of such examination includes community work and development, cultural production (including digital media and creative expression), gender, and generational dynamics, immigration and diaspora, political participation, social activism, and transnational encounters.

The teaching and research methods used by faculty members in the department are interdisciplinary and comparative in nature, with a healthy mix of quantitative, qualitative, interpretive, and applied approaches. These methods develop out of dynamic cross-fertilization among faculty expertise that registers both major intellectual shifts in the field and notable trends from disparate disciplines, professional practices, and epistemological traditions.

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 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, 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
Entry to the Major

Admission
An overall grade-point average of 2.0 or better is required for admission to the major.

Transfer Students
Transfer applicants to the Asian American Studies major with 90 or more units must complete the following introductory course if possible prior to admission to UCLA: one lower-division Asian American studies course or one course that focuses on Asian Americans.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Two courses from Asian American Studies 10 or 20, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W.

The Major

Honors Program
Through the Asian American Studies honors program, Asian American Studies majors undertake a year-long thesis or its equivalent with the guidance and supervision of a faculty member. Successful completion of the departmental honors program is indicated on the transcript. For additional information about the departmental honors program, contact the undergraduate academic adviser.

Honors students must take the Asian American Studies 198A, 198B, and 198C sequence in which they write a thesis or its equivalent under the direction of a faculty member.

Policies

The Major
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
For additional information about the departmental honors program, contact the undergraduate academic adviser.

Admission
The honors program is open to junior and senior Asian American Studies majors who have (1) 90 or more total units, (2) a grade-point average of 3.5 or better in upper-division Asian American Studies courses and an overall cumulative GPA of 3.0 or better, and (3) completed two lower-division Asian American Studies courses.

Undergraduate Minors

Asian American Studies Minor
The Asian American Studies minor is designed for students who wish to gain understanding of and competence in Asian American Studies.

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.


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.


Policies

The Major
No more than 4 graded units of Asian American Studies 195, 197, 198, and 199 may be applied toward the minor. Courses 192 and 196 may not be applied toward the minor. Only courses in the department or those multiple-listed with the department may be taken to fulfill requirements for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have 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

Lower-Division Courses

10. History of Asian Americans. (5) Lecture, three hours; discussion, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Contemporary Asian American Communities. (5) Lecture, three hours; discussion, two hours. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, and political issues, and interethic relations. P/NP or letter grading.

Upper-Division Courses

103. Social Science Research Methods. (4) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. 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.

204B. Special Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requisite: course 191. Participation by students in community-related research studies, including internships. P/NP grading.

97. Variable Topics in Asian American Studies. (1 to 2) Seminar, one to two hours. Independent research related to current topics and par- ticular research methods in Asian American studies through readings and course assignments. 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-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 research projects supervised by undergraduate Research Center. May be repeated. P/NP grading.
110. American Immigration Policy. (4) Seminar, three hours. Examination of determinants leading to U.S. immigration policy over time and its implications for demographics and political culture. Survey of issues and policies aimed at citizenship and immigrant integration.

111. Asian Americans and War. (4) Lecture, three hours. Interdisciplinary examination of role that war has played in history and culture of Asian Americans, drawing on diverse set of materials ranging from Asian American writing, popular movies, and wartime propaganda to political speeches, Supreme Court decisions, and protest culture, to evaluate relationship between Asian American communities and geopolitical conflicts from late-19th century to contemporary period. P/NP or letter grading.

M112A. Historical Survey of Asian American Literature. (5) [Same as English M102A.] Lecture, four hours; discussion, one hour (when scheduled). Enrollment restricted to English Composition 3 or 3H. 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 essays. May be repeated for credit with topic or instructor. P/NP or letter grading.

112C. Asian American Creative Writing. (4) Seminar, four hours. Enforced requisite: English Composition 3 or 3H. Designed for juniors/seniors. Examination of major works of Asian American literature. Asian Americans inhabit outside American mainstream and specific factors, such as generation, ethnicity, gender, class, and social orientation, that shape individual’s unique marginalized experience. Balanced blend of readings, class discussion, and writing assignments. P/NP or letter grading.


M114. Asian American Education and Schooling. (4) [Same as Education M103G.] Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.

115. Women and Community in Asian American Studies. (3) Lecture, two hours. Condition of Asian women in America. Topics include women in Asian American history, racial and cultural stereotypes, and contemporary issues. Methodological approaches to study of gender issues presented and evaluated. P/NP or letter grading.

M116. Asian American Social Movements. (4) [Same as Labor Studies M116.] Lecture, three hours. Designed for juniors/senior. Examination of several dimensions of Asian American social movements including grassroots, mass movement character, political and social vision, and social and political relevance to current issues. How movement participants linked to larger political and economic conditions. P/NP or letter grading.

M117. Asian American Personality and Mental Health. (4) [Same as Psychology M107.] Lecture, three hours. Prerequisite: Psychology 10. Foundation of personality development and mental health among Asian Americans. Topics include culture, family patterns, achievements, stresses, resources, and immigrant and minority group status. P/NP or letter grading.

118. Asian American Religious History. (4) Lecture, three hours. Examination of religion as third thread within context of Asian American history, primarily before and during period before World War II. Basic grounding in early Asian American history through exploration of role of religion in various communities. P/NP or letter grading.

M119. Asian American and Pacific Islander Labor Issues. (4) [Same as Labor Studies M119.] Lecture, three hours. Examination of historical and contemporary labor issues facing Asian American communities, with emphasis on key role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P/NP or letter grading.

120. Yellow Peril’s Revenge: Asian American Independent Cinema. (4) Lecture/screening, three hours. Exploration of relationship between content, social context, and production processes in independently produced films by and about Asian American filmmakers, from social change documentarists to theatrical features and online talent. P/NP or letter grading.


122A. Indigeneity, Empire, and Resistance in Pacific Islands. (4) Lecture, three hours. Introduction to indigenous and colonial histories of Pacific Islands. Discussions of film screenings, guest speakers, and reading assignments, with focus on issues of cultural survival, empire, indigeneity, migration, resistance, sovereignty, and war. P/NP or letter grading.

122B. Gender and Film in Pacific. (4) Lecture, three hours. Prerequisite: course 122A. Exploration of rise of film in Pacific Islands during 20th century, with attention to politics of gender, history, and representation, to engage students in textual and visual readings of feature-length films about Pacific. Discussions, film screenings, and guest speakers, with focus on aesthetic, cultural, economic, gendered, historical, and political dimensions of films. P/NP or letter grading.

123. Cultures of/against Empire. (4) Seminar, three hours. Critical fieldwork practices linking Asian American studies to study of U.S. cultures of imperialism. Course begins with premise that Asian American studies contribute distinctly to contemporary scholarship. Examination of political and intellectual coalitions toward which Asian American studies critique builds. Emphasis on works that approach study of empire through comparative frameworks of colonialism, transnationalism, and studies of migration. P/NP or letter grading.

M124. Comparative Racialization and Indigenousity. (4) [Same as African American Studies M124.] Lecture, three hours. Examination of processes and histories of racialization and colonization in U.S. Discourses, film screenings, guest speakers, and reading assignments, with focus on issues of cultural survival, survival, indigenous solidarity, resistance, sovereignty, and war. P/NP or letter grading.


126. Comparative Race and Indigeneity. (4) Seminar, three hours. Preparation: one ethnic studies course. Analysis of race and indigeneity within comparative ethnic studies framework. Examination of how race, Pacific Indigeneity, and Latinx identities are formed in relation to one another in U.S. and its territories. Interrogation of how communities are pitted against each other by structural analyzes—such as war, imperialism, racial capitalism, settler colonialism, white supremacy, and heteropatriarchy—and theorizing of strategies for building solidarities across difference. Intersectional and inter-disciplinary analysis of race and indigeneity in relation to gender, sexuality, and identity from ethnic studies, gender studies, anthropology, sociology, history, cultural studies, and literature. P/NP or letter grading.

M128. Participatory Action Research on Youth Organizing for Racial Justice. (4) [Same as African American Studies M128B, American Indian Studies M129, Chicana/o and Central American Studies M129B, and Public Affairs M122.] Lecture, four hours. Students are required to take action on primary action research on grassroots youth organizing across California. Students gain historical and theoretical background on multi-racial and inclusive organizing. Students learn how to collect and analyze data pertaining to pressing organizing issues. Study and critical analysis of youth organizing strategies. Weekly training modules, skill building, and grassroots organizing strategies that prepare students for internships in grassroots youth organizing groups serving Asian American, Black, Latinx, and Native American communities. P/NP or letter grading.

M129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) [Same as Community Health Sciences M140.] Lecture, three hours; fieldwork, one hour. Introductory overview of mental and global health issues facing 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.


M130B. Chinese Immigrant Literature and Film. (4) [Same as Chinese M153 and Comparative Literature M171.] Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. In-depth look at Chinese immigrant experience by reading literature and watching films. Theories of diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

M130C. Chinese Immigration. (4) [Same as Sociology M153.] Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organization, and institutions of Chinese America and its interactions with social environment. P/NP or letter grading.


131B. Japanese American Incarceration. (4) Seminar, three to four hours. Prerequisite: course 10 or 10W. Designed for juniors/seniors. In-depth analysis of key literature about mass incarceration of Japanese Americans during 1940s. Immediate and long-range effects of internment. Emphasis on research. Original paper based on primary sources held by University of California required. Letter grading.

131C. Japanese American Resettlement. (4) Seminar, three hours. Prerequisite: course 10. In-depth analysis of key literature about resettlement of Japanese Americans during World War II. Development of original research based on primary sources. P/NP or letter grading.


135. South Asian Refugee Communities in U.S. (4) Lecture, three hours. Survey of contemporary South Asian communities and examination of conditions that led to migration of almost two million people from Laos, Cambodia, and Vietnam with close attention to history of U.S. Imperialism and Cold War politics. Screening of fiction and nonfiction films by and/or about Southeast Asian refugees. P/NP or letter grading.

140XP. Power to People: Asian American and Pacific Islander Community-Based Learning. (4) Formerly numbered 140SL) Lecture, two hours; fieldwork, four hours. Enforced requisite: course 10, 10W, 20, 20W, 30, 30W, 50, or 50W. Seminar. Learning course to engage and critically examine community organizing and community-based organizations (CBOs) in Asian American and Pacific Islander communities such as Asian American centers, local community groups, local nonprofits, community health, and community services, and applied research. P/NP or letter grading.

141AX. Asian American and Pacific Islander Leadership Development Project Part I: Leaders. (4) (Formerly numbered 141A) Lecture, three to four hours. Limited to juniors/seniors. First term of two-term series on leadership development, with focus on intellectual and practical learning of leadership concepts, models, and skill building. Opportunities for Pro gramming (credit to be given only on completion of course 141BX).

141BX. Asian American and Pacific Islander Leadership Development Project Part II: Field Studies. (4) (Formerly numbered 141B) Lecture, three hours; fieldwork, three hours. Enforced requisite: course 141AX. Limited to juniors/seniors. Second term of two-term series on leadership development, with focus on intellectual and practical learning of leadership concepts, models, and skill building. Opportunities for Programming (credit to be given only on completion of course 141BX).

C142A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital video to tell visual stories, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, basic use of Pilipino, Vietnamese, and other ethnic communities in Los Angeles. Examination of different approaches and strategies to community building and maintenance. P/NP or letter grading.

C142B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Intermediate application of social documentary theory and methodology. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing intellectual and practical learning of leadership concepts. Topics include videography, composition, sound recording, interviewing techniques, editing, and writing treatments. Completion of community-based documentary project. Concurrently scheduled with course C242A. P/NP or letter grading.


M143A. Fieldwork in Asian American and Pacific Islander Communities. (4) (Same as Anthropology M138Q.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and application of these methods in fieldwork. Field trips and associated written report. Critical reflection of issues related to identity, migration, multiculturalism, tourism, and Indigenous rights. Field excursions and guest lectures from local community included. Given in Hawai‘i. P/NP or letter grading.

143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawai‘i. (4) Lecture, three hours; discussion, one hour. Critical examination of historical and contemporary experiences of various people in Hawai‘i. Examination of historical, economic, and political contexts of migrations and relations between indigenous peoples, migrants, and existing racial and ethnic groups. P/NP or letter grading.

143C. Ethnic Identity and Ethnic Relations in Hawai‘i. (4) (Same as Anthropology M168Q.) Lecture, three hours; discussion, one hour. Continuing critical examination of the role of 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, cultural, social, and economic aspects of ethnic and identity relations in Hawai‘i. Given in Hawai‘i. P/NP or letter grading.

156. Culture, Media, and Los Angeles. (6) (Same as African American Studies M102 and Honors College M102 BC.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation and promotion of ethnic identity, gender, and sexuality. P/NP or letter grading.


161B. Class and Gender in Care Work. (4) (Same as Chicana/o and Central American Studies M128B, Gender Studies M140C, and Labor Studies M141B.) Lecture, three hours; discussion, one hour. Examination of how gender, race, class, and citizenship status shape people’s access to and experience of domestic work experiences through film, fiction, and traditional scholarship. Investigation of why domestic work is in high demand, who employs domestic workers, and why immigrants and women of color make up large percentage of this workforce. Exploration of how domestic workers navigate pay and working conditions, and how they build community and family networks in shadows of their privileged employers. P/NP or letter grading.

163. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (4) (Formerly numbered M160C.) (Same as African American Studies M167, Chicana/o and Central American Studies M130, and Labor Studies M167.) Seminar, three hours. Development of theoretical and practical understanding of work center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multiethnic and multiracial campaigns for workplace justice, and intersectional cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Gender Studies M164A.) Lecture, three hours. Study of various forms of violence done on women not only in and of themselves but in light of larger systems of oppression, with focus on Pilipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

165. Race, Gender, Class. (5) (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/NP or letter grading.

166A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Chicana/o and Central American Studies M156A and Labor Studies M166A.) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement, critical examination of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of immigrant students in higher education and challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights, write poetry and spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Chicana/o and Central American Studies M156B and Labor Studies M166B.) Seminar, two hours. Requisite: course M166A. Treatment of research conducted by students in course M166A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

166C. Research on Immigrant Students and Higher Education. (4) (Same as Chicana/o and Central American Studies M156C and Labor Studies M166C.) Seminar, three hours. Enforced requisites: courses M166A, M166B, and M166C. Given in Los Angeles. Treatment of research conducted by students in courses M166A and M166B 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 throughout year. Letter grading.


168. 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 outreach and retention of students in higher education, especially through student-initiated programs, effects on academic achievement, and services received by UCLAs as case. May be repeated twice for credit. Letter grading.

169. Constructing Race. (4) (Same as African American Studies M159P and Anthropology M144P.) Lecture, three hours; discussion, one hour (when scheduled). Examination of racial and ethnic identities as constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

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 transformations that have occurred in Asian America in last four decades as consequence of global eco-
nomic restructuring and new immigration. Building of linkages between roots of social constructions of race and mul
tilized social processes that now constitute globalization Asian American. Theoretical readings assigned. P/NP or letter grading.

17A. Critical Issues in U.S.-China Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S.-China relations, 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/NP or letter grading.

17B. Critical Issues in U.S.-Japan Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S.-Japan relations 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/NP or letter grading.

17C. Critical Issues in U.S.-Korea Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S.-Korea relations 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/NP or letter grading.

17D. Critical Issues in U.S.-Philippine Relations. (4) (Same as History M141C) Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisite: History 176A, 176B, 176C. Designed for juniors/seniors. Examination of complex interrelationship between U.S. colonialism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in 20th century. P/NP or letter grading.


17F. U.S. Empire in Southeast Asia. (4) Seminar, three hours. Limited to juniors/seniors. Interdisciplinary examination of historical trajectory that led U.S. Empire to Southeast Asia and conditions that led to migration of refugees from Laos, Cambodia, and Vietnam to U.S. with focus on settler colonialism, imperialism, and global racial warfare. P/NP or letter grading.

17G. Capi
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amage requirement for major and minor. Students work as research team, are matched with one or more community groups, and must complete minimum of 40 fieldwork hours. Duties and responsibilities collaboratively determined by instructor, students, and sponsoring organizations as determined in consultation with instructor. Letter grading.

186. Capstone Research Seminar. (4) Seminar, three hours. Limited to senior departmental majors and minors. Synthesis and application of knowledge students have acquired through prior departmental courses so they can conduct in-depth research or creative-expression project. Themes may vary by instructor and term. Students pursuing work on related course themes must advance from instructor, then share and critique other student work in progress. Letter grading.

187A. Special Courses in Research Methodologies. (1) 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, political, and economic 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/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 a 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.

175. 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.


177. Social Movements in Guam and Pacific. (4) Lecture, three hours. Survey of immigrant and indig
nous histories in Guam, Mariana Islands, and Oceania, emphasis on Chamorro and Pacific Islander communities, and feminist, environmental, nationalist, and religious social movements. P/NP or letter grading.

178. Critical Refugee Studies. (4) Lecture, three hours. Requisite: course 10, 10W, 20, 20W, 30, 30W, 40, 40W, 50, 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 to four hours. Limited to senior departmental majors and minors. Designed to serve as complement to service learning requirement for major and minor and may be used to fulfill capstone requirement for major and minor. Students work as research team, are matched with one or more community groups, and must complete minimum of 40 fieldwork hours. Duties and responsibilities collaboratively determined by instructor, students, and sponsoring organizations as determined in consultation with instructor. 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 topics and project preparation and proposal 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: 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. 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.

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 projects. Individual study under guidance of 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 supplemental reading, papers, or projects. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
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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 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.

191C. Topics in Asian American Populations and Communities. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-heritage groups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

M191F. Topics in Asian American Literature. (5) (Same as English M191C.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable-length seminar course in Asian American literature. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; themes of identity; cross-cultural issues; inter-disciplinary, or interracial 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.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or four hours. Limited to juniors/seniors. Tutorial and supervised practicum for advanced undergraduate students in Asian American studies courses. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course settings. No more than 4 units may be applied toward major; units applied must be taken for letter grade. May be repeated for credit. P/NP or letter grading.

193. Community or Corporate Internships in Asian American Studies. (4) Tutorial, two hours; fieldwork, eight hours. Requires: courses 10 or 10W, and 20. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) Seminar, three hours. Enforced requisite: course M195A. Designed for students in Asian American Studies courses M195CE, American Indian Studies courses M195CE, Chicana/o and Central American Studies courses M195CE, and Gender Studies courses M195CE. Tutorial, one hour; fieldwork, six 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 bimonthly meetings with graduate student coordinator, and write final research paper. Faculty sponsors and 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 first-year students under the advisement of a faculty mentor to learn skills and techniques. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Asian American Studies. (2 to 4) Tutorial, three hours. Requires: course 10 or 10W or 20 or comparable knowledge in Asian American studies, 3.0 grade-point average or better. Limited to juniors/seniors. Directed reading of scholarly work or supervised research between student and faculty member. No original research or project expected, but tangible evidence of mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

198A. Honors Research in Asian American Studies. (4) Tutorial, three to four hours. Requisites: two courses from 10 (or 10W), 20, and 30 (or 30W) and one course from 194A through 1018, 187A, or 191A. Introduction to research techniques and applications of methodology in study of Asian American communities. Limited to juniors/seniors. Preparation 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.

198B-198C. Honors Research in Asian American Studies. (4–4) Tutorial, three hours. Requisite: course 198A. Course 198B is requisite to 198C. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. In Progress (198B and letter 198C) grading.

199. Directed Research or Senior Project in Asian American Studies. (2 to 4) Tutorial, three hours. Preparation: 3.0 overall grade-point average. Requisites: courses 10 (or 10W) and 20 or comparable knowledge in Asian American studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for 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 events in Asian and Pacific Islander American history and historiography. Introduction to research in archival and/or oral history methods. S/U or letter grading.

200B. Critical Approaches to Emerging Issues in Asian and Pacific Islander American Studies. (4) Seminar, three hours. Designed for graduate students. Examination of emerging issues in Asian and Pacific Islander American communities, using selected theoretical approaches. Introduction to research in social-scientific methods such as ethnography, participant observation, interviewing, survey development, or community-based research. S/U or letter grading.

200C. Critical Issues in Asian and Pacific Islander American Literatures, Cultures, and Media. (4) Seminar, three hours. Designed for graduate students. Examination of critical questions emerging from Asian and Pacific Islander American literature 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 relevancy in research with ethnic minority populations. Review of characteristics and logical processes of research and applicability of scientific and scholarly inquiry in advancing knowledge. S/U or letter grading.


215A-215B. Asian American Jurisprudence. (215A: 3 or 4/215B: 1 or 2) Lecture, three hours. Course 215A is enforced requisite to 215B. Designed for graduate students. Examination of the development and evolution of Asian American law as well. Concurrently scheduled with Law 315. In Progress (215A) and S/U or letter grading (215B) grading.


C242A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital video to tell visual stories, recall history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, basic instruction in use of digital video technology, and group and individual video projects. Concurrently scheduled with course C142A. S/U or letter grading.

C242B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, basic instruction in use of digital video technology, and group and individual video projects. Concurrently scheduled with course C142B. S/U or letter grading.


M260. Topics in Asian American Literature. (4) (Same as English M260A.) Seminar, three hours. Gradate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

Asian Languages and Cultures / 227

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 advisor 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 advisor. 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

Study Abroad
Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes
The Asian Humanities major has the following learning outcomes:

- Identification of major elements of cultures in Asia, with particular attention to chosen regions of expertise
- Assessment of the social contours of a given Asian society, and explanation of ways in which dynamics within communities and other social structures shape the course of events
- Understanding of the role that language and literature play in reflecting and influencing Asian societies, across time and different literary genres
- Formulation of effective written and oral arguments that address important themes and issues in Asian arts and cultures, in ways that are historically appropriate and relevant to particular contexts
- Conduct research on Asian languages, literatures, and other cultural elements, making effective and critical use of primary and secondary source materials
- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus

Entry to the Major

Transfer Students
Transfer applicants to the Asian Humanities major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, South-east Asian M60) or one culture course (e.g., Japanese 75, 80, Korean 40, 70, 80) within the department.

The Major
Required: Three upper-division language courses in one Asian language offered by the department and eight upper-division electives within the department, including at least one course from at least four of the following areas: Asia, China, Japan, Korea, South Asia, or Southeast Asia.

Honors Program
The honors program is a three-semester program (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies
Honors Program
Admission
The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

requirements
Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

Asian Languages and Linguistics BA

Study Abroad
Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes
The Asian Languages and Linguistics major has the following learning outcomes:

- Identification of major linguistic features of Asian languages, with attention to chosen region of expertise
- Demonstrated working knowledge of one or two Asian languages
- Demonstrated competency in fieldwork with Asian languages in their natural social and cultural contexts
- Demonstrated familiarity with current theories of language pedagogy with practical skills in classroom teaching of an Asian language
- Understanding of the interdependency and dynamic relationship between language, society, culture, and social interaction in the context of Asian languages across time and different modes of communication
- Conduct research and formulate effective written and oral arguments that address important themes and issues in languages and cultures of Asia

Entry to the Major

Transfer Students
Transfer applicants to the Asian Languages and Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one Asian languages and culture course or one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course or one introduction to linguistic analysis course.
Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50, 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.

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.

Honors Program

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Preparation for the Major

All preparation courses must be completed with a C or better grade. A minimum 2.5 grade-point average is required for both (1) the language and (2) Linguistics 20 and the civilization/religion course.

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

Asian Religions BA

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes

The Asian Religions major has the following learning outcomes:

- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus
- Understanding of the crucial role of language and written documents in the development of religious beliefs and practices
- Clear and effective writing on topics in the field, in a way that is sensitive to the complex dynamics and transformations of religion across Asian cultural boundaries
- Formulation of research projects using primary and secondary source materials, making effective and critical use of primary and secondary source materials
- Demonstrated working knowledge of one Asian language at an intermediate level
- Demonstrated basic exposure to the Buddhist argot of one Asian language

Entry to the Major

Transfer Students

Transfer applicants to the Asian Religions major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese, or one year of Sanskrit, and one introduction to 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.

Requirements

Preparation for the Major

Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60.

The Major

Required: Three upper-division language courses in one Asian language offered by the department; six upper-division Asian 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.

Honors Program

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.
Chinese BA

Study Abroad
Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes
The Chinese major has the following learning outcomes:

- Advanced ability to speak, read, and write modern Chinese
- Demonstrated competence in reading classical Chinese
- Broad knowledge of Chinese cultural, religious, and/or literary history from early periods to the modern era
- Demonstrated disciplinary familiarity in analysis of texts, objects, and historical trends
- Clear and effective writing on topics in Chinese civilization, in ways that draw upon the complex dynamics and cultural transformations across the history of China
- Formulation of research projects that engage critically and thoughtfully with primary and secondary materials

Entry to the Major

Transfer Students
Transfers applicants to the Chinese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese and one Chinese civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Chinese 6 or 6A or 10 or equivalent, and one course from 50, M60, M60W, 70, 70W, or Asian 30.

The Major

Required: Eleven courses as follows: (1) five language courses selected from either modern Chinese (Chinese 100A and 100B and 100C or 100I, 101A, 101B, 102A, C107A, C120, 130A or 130B, 135) or from premodern Chinese (110A, 110B, 110C, 140A through 140D, 165)—at least two language courses must be in the premodern language or texts, (2) one literature course selected from 130A, 130B, 131, 135, 140A through 140D, C150A, C150B, 151, 152, or 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.

Honors Program
The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser. Highest honors, honors, or no honors—awarded as determined by the faculty thesis director and the departmental honors committee.

Policies

Transfer Students
Transfer applicants to the Japanese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Japanese and one Japanese civilization or images of Japan course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Japanese 6 or 10 or equivalent, and one course from 50, 70, 75, 80, Asian 30.

The Major

Required: Eleven courses as follows: (1) five language courses in modern or premodern language or texts selected from Japanese 100A and 100B and 100C or 100S, 100R, 101A and 101B and 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from 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
The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Honors Program

Admission
The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring 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.
quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

Korean BA

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes

The 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

Entry to the Major

Transfer Students

Transfer applicants to the Korean major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Korean and one Korean civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Korean 6 or 6A or 10 or equivalent, and one course from 40, 50, M60, 70, 80, Asian 50.

The Major

Required: Eleven courses as follows: (1) five language courses selected from Korean 100A, 100B, 100C, 101A and 101B and 101C or 101I, 102A, 102B, 102C, 103A, 103B, 103C, 104A, 104B, 104C, C105A, C105B, C105C, 106A, 106B, 106C, 107A, 107B, 107C, CM120, 124, 165, 176, 178, (2) one literature course selected from 130A, 130B, C150, or C151, (3) three elective courses on Korea selected from CM127, C149, 154, 155, CM160, 165, 172, 175, C177, 180A, 180B, 180C, 181, 182, 183, 184A, 184B, 185, M186, 187, 191A, 191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Korea.

Honors Program

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Honors Program Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 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.

Southeast Asian Studies BA

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes

The Southeast Asian Studies major has the following learning outcomes:

- Appreciation of the region’s broader sociocultural and historical patterns
- Understanding of commonalities of societies and peoples across region
- Appreciation of distinctive elements, particularly between island and mainland populations
- Understanding of cultural, historical, and social contours of a particular Southeast Asian country
- Ability to assess social contours of Southeast Asian societies broadly
- Understanding of ways in which dynamics within communities and other social structures shape the course of events
- Understanding and assessment of distinct challenges that have shaped the region’s premodern historical trajectory
- Understanding and assessment of complex challenges that face contemporary societies in the region
- Appreciation of the central place of religion, religious diversity, and religious conflict in Southeast Asian societies
- Reading and assessment of cultural documents—literature, oral tales, performances—in their respective sociocultural contexts
- Conduct specialized research on Southeast Asian societies, history, or culture, making effective and critical use of primary and secondary source materials
- Formulation of effective written and oral arguments that address important themes and issues in Southeast Asian arts and cultures, in ways that are historically appropriate and relevant

Entry to the Major

Transfer Students

Transfer applicants to the Southeast Asian Studies major with 90 or more units must complete as many as the following introductory courses as possible prior to admission to UCLA: one year of Filipino/Tagalog, Indonesian, Thai, or Vietnamese; and one course in Asian civilization, Asian languages and cultures, introduction to Asian religions, or introduction to Buddhism.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
Requirements

Preparation for the Major

Required: Completion of the intermediate sequence in one Southeast Asian language offered by the department (e.g., Filipino 6, Indonesian 6, Thai 6, Vietnamese 6, or equivalent); Southeast Asian Studies 50; and one religion, literature, or culture course (e.g., Asian 30, Southeast Asian M60, 70, or Vietnamese 40) within the department.

The Major

Required: Eleven courses as follows: (1) one upper-division language course in a Southeast Asian language offered by the department selected from Indonesian 100A, 100B, 100C, Thai 100A, 100B, 100C, or Vietnamese 100A, 100B, 100C; (2) eight upper-division elective courses on Southeast Asia selected from Anthropology 116S, Asian American Studies 123, 125, 133, 134, M164, M171D, 171E, 176, Art History 156, Filipino 170, History 176A, 176B, 176C, 176E, 177A, 177B, 187M, Political Science 158, Southeast Asian Studies C120, 130, 135, C140, C150, 157, 160, 170A, 170B, 170C, Vietnamese CM155, 180A, or 180B; (3) two upper-division electives on other parts of Asia (China, Japan, Korea, South Asia) within the department or offered by another department (History, Geography, Anthropology, Political Science, Asian American Studies).

Policies

Preparation for the Major

Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major

Students may petition to satisfy (1) with an independent study (course 199) with a faculty member or a course in translation where the student’s written work is primarily in the target language.

Undergraduate Minors

Asian Humanities Minor

The Asian Humanities minor is designed to recognize a serious commitment to the study of Asian cultures. 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, methodology, religious studies).

Asian Languages Minor

The Asian Languages minor is designed to recognize a serious commitment to the study of Asian languages. It is especially suited for students who wish to augment their major program in the College of Letters and Science with mastery of an Asian language. The lower-division course in civilization or religious tradition provides students with an essential introduction to the diverse cultural heritages of Asia. In the upper-division languages courses, students gain advanced skills in speaking, aural comprehension, reading, and writing an Asian language.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units at UCLA and all lower-division requirements for the minor, and consult with the departmental undergraduate adviser.

The Minor

Required Lower-Division Courses (10 units):
Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 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.

Required Upper-Division Courses (20 units):
Three language courses in one Asian language offered by the department and two electives within the department.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Graduate Majors

Asian Languages and Cultures MA, CPhil, PhD

Requirements

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

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.

Asian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) (Same as Indo-European Studies M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semiotic language representation 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 re-
quired. General survey of development of Buddhism in India, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Letter grading.

M60W. Introduction to Buddhism. (5) (Same as Religion M60W) Lecture, three hours; discussion, one hour. Preparation: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60. Knowledge of Asian languages not required. General survey of Buddhism, with an emphasis on meditation and soteriology, and processes by which doctrinal innovation prompts changes in meditative practice. Letter grading.


121F. Asian Languages and Cultures. (5) Lecture, three hours. Preparation: recommended pre-requisites: course 120, including reading, writing, and other exercises in Chinese, Japanese, and Korean. P/NP or letter grading.

121G. Buddhist Literature in Translation. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of regions and religions of Central Asia, especially Buddhism in Afghanistan and Pakistan. Topics include archaeological, art historical material, and linguistic approaches to history of religions. Letter grading.

121H. Introduction to Zen Buddhism. (5) (Same as Religion M61) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Introduction to Zen traditions and to interplay between Zen and other fundamental cultural and religious concerns in East Asia. Topics include role of Zen within Buddhist thought and practice, artistic and literary arts, society, and daily life. Letter grading.

120A. Introduction to East Asian Languages. (4) Lecture, three hours; discussion, one hour. Required of all Asian Language acquisition, best practices in teaching Asian language writing systems, special issues in teaching heritage students, comparisons of K-12 language teaching and college language teaching, best practices, and emerging trends in Asian language teaching. P/NP or letter grading.

120FL. Readings in East Asian Languages. (2) Seminar. Two hours; requisite: Chinese 6 or 6A or 6C or Japanese 6 or Korean 6 or 6A. Enforced corequisite: course 120. Additional work in major East Asian languages to enrich and augment work assigned in course 120, including reading, writing, and other exercises in Chinese, Japanese, and Korean. P/NP or letter grading.


124. Teaching and Learning of Heritage Languages. (4) (Same as Near Eastern Languages CM114 and Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographic, sociocultural, and sociolinguistic profile of HLLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences in goals and focus of language learners (FLLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for literacy instruction; opinion of instruction of HL and FL classes. Action research component included. Concurrently scheduled with course CM224. P/NP or letter grading.


135. Asian Foodways across Borders. (4) Lecture, two and one half hours. Examination of Asian foodways from 19th century to present, looking at how Asian and Western foods have impacted each other as they have been exchanged. Explores migration into host political, economic, and cultural forces of globalisation 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. Preparation: recommended prerequisite: prior course in Buddhism or traditional Asian religions. Knowledge of one or more Asian languages not required. Readings from various Buddhist literature of Indian and non-Indian origin, with emphasis on key Buddhist themes and critical issues in cross-cultural interpretations of Asian religious texts. Letter grading.

152. Tibetan Buddhism. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of the history and practice of Buddhism in Tibet from its beginnings to the present. Letter grading.

155. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course M60 (or Religion M60A) or M60W (or Religion M60W). Examination of issues related to Buddhist 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: recommended prerequisite: course M60 (or Religion M60A) or M60W (or Religion M60W). Examination of issues related to Sinophone literature, including the role of Buddhism in globalizing world, with focus on changing and diverse presentations of Buddhism in film, print, and new media. P/NP or letter grading.

159. Asian Foodways across Borders. (4) Lecture, two and one half hours. Examination of Asian foodways from 19th century to present, looking at how Asian and Western foods have impacted each other as they have been exchanged. Explores migration into host political, economic, and cultural forces of globalisation 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.

160. Buddhism Meditation Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice of meditation in Buddhism, with emphasis on Theravada and Zen schools. Topics include various typologies of meditation, theories of meditation and soteriology, and processes by which doctrinal innovation prompts changes in meditative practice. Letter grading.

163. Buddhism across Boundaries. (4) Lecture, two hours; discussion, one hour. Preparation: recommended prerequisite: prior course on Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Investigation of various themes in development of Buddhist traditions across Asia, as well as national and cultural boundaries, including issues of praxis, politics, and translation. Letter grading.

164. Buddhism and Early Religious History of Pakistan, Afghanistan, and Central Asia: Introduction. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of regions and religions of Central Asia, especially Buddhism in Afghanistan and Pakistan. Topics include archaeological, art historical material, and linguistic approaches to history of religions. Letter grading.

170. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religious traditions must be selected from languages spoken in Southeast Asia, and East Asia. P/NP or letter grading.
193. Speaker Series Seminars: Asian Languages and Cultures. (2) Seminar, two hours. Limited to undergraduate students. Introduction to latest scholarship in field of Asian studies. Attendance at selected scholarly presentations required, as well as sessions with faculty mentors. 204A and 204B may be repeated for credit. P/NP grading.

195. Community Internships in Asian Languages and Cultures. (4) Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors. Internship in supervised setting in community cultural or organizational setting. Students meet on regular basis with instructor and provide reports of their experience. Final paper that combines academic research and knowledge gained from community experience required. Individual contract with supervising faculty member required. P/NP or letter grading.


199. Directed Research in Asian Languages and Cultures. (2 to 8) 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 mentor. Culminating paper or project required. May be repeated for credit. Contract with cooperating instructor. Individual contract required. Letter grading.

Graduate Courses


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 activity. Critical reading and discussion of special topics 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. Selected topics in East Asian culture and history, with focus on China, Japan, and Korea. May be repeated for credit with topic change. S/U or letter grading.

206A. Issues in Teaching Asian Languages and Classroom Practices. (4) Seminar, three hours: teaching practice, two and one half hours. Training and supervised Asian language practice in form of in-person, online and/or peer-based instructional activities for MA students under training to become language instructors. Activities generally involve instruction, tutorial, assessment, material development, and other professional practices, with goal for students to gain actual experience on campus and in community-based language educational settings. Students perform 10 to 20 hours of teaching practices during quarter. S/U or letter grading.

206B. Instructional Apprenticeship in Teaching Asian Languages. (4) Seminar, three hours: teaching practice, two and one half hours. Training and supervised Asian language practice in form of in-person, online and/or peer-based instructional activities for MA students under training to become language instructors at K-12 or postsecondary levels. Activities generally involve instruction, tutorial, assessment, material development, and other professional practices, with goal for students to gain actual experience on campus and in community-based language educational settings. Students perform 10 to 20 hours of teaching practices during quarter. S/U or letter grading.

206C. Cultural and Social Contexts of Language Learning and Teaching. (4) Seminar, three hours: teaching practice, two hours. Training and supervised Asian language practice in form of in-person, online and/or peer-based instructional activities for MA students under training to become language instructors at K-12 or postsecondary levels. Activities generally involve instruction, tutorial, assessment, material development, and other professional practices, with goal for students to gain actual experience on campus and in community-based language educational settings. Students perform 10 to 20 hours of teaching practices during quarter. S/U or letter grading.


216. Seminar: History and Asia. (4) Seminar, three hours. Designed for graduate students. Readings and discussion of major historiographic trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annales school and cultural history, microhistories, gender, space, historical memory, postcolonial histories, subaltern, and modernity and Asia. S/U or letter grading.

220A-220B. Seminars: Topics in Cultural Studies. (4–4) Seminar, three hours. Complements course 210. Further investigation of methodology and materials of cultural studies in connection with special topics selected by instructors. May be repeated for credit. In Progress (220A) and letter (220B) grading.

222A-222B. Corpus Linguistics. (4–4) Seminar, three hours. Construction and exploitation of computerized language corpora in areas such as lexicology, discourse grammar, language change and variation, language learning, and teaching. Discussion of special issues in working with East Asian language corpora. In Progress (222A) or S/U or letter (222B) grading.

CM204, Teaching and Learning of Heritage Languages. (4 Same as Near Eastern Languages CM214 and Slavic CM214) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instructors. For heritage language learners (HLL) regarding topic defini- tions of HLs and HLLs; linguistic, demographic, so- ciolinguistic, and sociocultural profile of HLs, particu- larly HL groups most represented among UCLA students (institutional and individual). For HLLs toward HLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similiar- ties and differences between HLs and foreign lan- guage learners (FLLs) 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. Concurrently scheduled with course CM124. S/U or letter grading.

230A-230B. Seminars: Theoretical Topics in East Asian Languages. (4–4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Concerns of literary theory that are brought to fore by reading of literature from or about East Asia. Reading from both Western and Asian sources; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.

240A-240B. Seminars: Topics in East Asian Literary History. (4–4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian language. Critical issues common to literary historiog- raphy in East Asia, including periodization, canon, ide- ology, interaction between high and low culture, women and oral, etc. In Progress (240A) and letter (240B) grading.


245A-245B. Seminars: Position of Modernity in East Asian Literature. (4–4) Seminar, three hours. Preparation: at least five years of one East Asian language. Designed for graduate students. Course 245A concerned with conceptual architecture and archaeology of modernity, with readings largely from Euro- pean sources. In-class discussion of these readings for work as Asianists. Focus on Asian writings in course 245B. In Progress (245A) and letter (245B) grading.

255. Topics in Southeast Asian Literature and/or Cinema. (4) Seminar, three hours. Knowledge of one Southeast Asian language recommended but not re- quired. Theoretical concerns raised by works from Southeast Asia, one Southeast Asian language, and/or Southeast Asian diasporas. Critical and historical ex- amination of literary and/or film representations con- nected to practices of empire, nation, diaspora, and globalization. May be repeated for credit. S/U or letter grading.


265A-265B. Seminars: Selected Topics in Buddhist Studies. (4–4) Seminar, three hours. Coverage varies. May be repeated for credit. S/U or letter grading (265B) grading.


281A-281B. Field Methods for Study of East Asian Oral Traditions. (4–4) Seminar, three hours. Description and evaluation of modern approaches to col- lecting and documenting oral tradition as text, perfor-
mance, and sociocultural event, providing hands-on experience in fieldwork and archival methods. Consideration of approaches ranging from written transcription and textualization to audio and video presentations.

In Progress (2B1A) and S/U or letter (2B1B) 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 expanded its empire into East and Southeast Asia. Coverage of that period and array of anthropological studies conducted in Japan’s colonies and occupied areas in this highly explored area of study of colonialism and aftergraduation.

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.

Tutoring.

299. Independent Study. (2 to 6) Tutorial, to be arranged. Designed for graduate students. Guided research and writing of research paper. May be repeated. Enforced requisite. May be applied toward Ph.D. degree. May not be applied toward Ph.D. degree. S/U or letter grading.

301. Teaching East Asian Language as Foreign Language. (4) Lecture, four hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. 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 Asian Languages at College Level. (4) Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures. Study in team-teaching, teaching methodology, developing course materials, and testing. Participation in peer observations and workshops required. Students receive unit credit toward full-time equivalency but not toward any degree requirements. S/U grading.

496C. Computer Technologies for Teaching College-Level Chinese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Chinese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. 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.

496E. Computer Technologies for Teaching College-Level East Asian Languages. (2) Lecture, two hours. Intended for current or potential teaching assistants in East Asian Languages. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. 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.

496J. Computer Technologies for Teaching College-Level Japanese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Japanese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. 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.

496K. Computer Technologies for Teaching College-Level Korean. (2) Lecture, two hours. Intended for current or potential teaching assistants in Korean. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. 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.

501. Cooperative Program. (2 to 6) 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.


597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 8) Tutorial, to be arranged. S/U grading.

598. Research for and Preparation of MA Thesis. (4 to 8) Tutorial, to be arranged. Maximum of 8 units may be applied toward MA degree requirements. S/U grading.


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. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on four basic language skills—listening, speaking, reading, and writing. P/NP or letter grading.

2. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Recommended preparation: ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. 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 1 with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 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.

3R. Accelerated Modern Chinese for Advanced Beginners. (5) Lecture, three hours; discussion, one hour. Enforced requisite: course 2 or Chinese placement test for second-year 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. Enforced 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 for students who wish to complete one-year foreign language requirement at accelerated pace. P/NP or letter grading.

4A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Enforced 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 4. P/NP or letter grading.

5. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 4 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.

5A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 4A 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.

5C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced requisite: Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their knowledge of standard Mandarin dialect. P/NP or letter grading.

5F. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Enforced 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.

5A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 5A 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.

5C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced 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 knowledge of standard Mandarin dialect. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Designed for 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 knowledge of 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 Chi-
neese). 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. Placement test is equivalent to elementary-level Chinese, Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive study of language, literature, and culture. Completion of course 10 is equivalent to completion of course 6. Offered in summer only. P/NP or letter grading.

11. 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.

12. Chinese Language, Society, and Culture. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Exploration of relationship between Chinese language, society, and culture. Discussion of fundamental role of language in Chinese social life and cultural practices while simultaneously exploring how social and cultural factors impact ways in which Chinese language is organized. Main focus on language and social practices, including gender and cultural practices, language and politics, language and commerce, language and law, language and arts, and language and globalization. P/NP or letter grading.

13. Popular Culture in Modern Chinese Societies. (5) Lecture, three hours; discussion, one hour. Examination of modern Chinese popular culture in China, Taiwan, Hong Kong, and overseas Chinese communities. From fiction to film to 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.

14. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Examining of modern Chinese popular culture in China, Taiwan, Hong Kong, and overseas Chinese communities. From fiction to film to 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.

15. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Examining of modern Chinese popular culture in China, Taiwan, Hong Kong, and overseas Chinese communities. From fiction to film to 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.

Upper-Division Courses

100A-100B-100C. Advanced Modern Chinese. (4–4–4) Lecture, three hours; discussion, two hours. Enforced requisite: course 6 or 10 with grade of C or better or Chinese placement test. Course 100A with grade of C or better or Chinese placement test is enforced requisite to 100B; course 100B with grade of C or better or Chinese placement test is enforced requisite to 100C. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literature, focusing on expressions from poetry, prose, fiction, and drama. P/NP or letter grading.

100W. Classics of Chinese Literature. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 70W. Prior knowledge of Chinese culture, literature, or language not required. Introduction to pre-20th-century Chinese literature, focusing on expressions from poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

100C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an introduction to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or projects. Not open for credit for students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive study of language, literature, and culture. May not be repeated for credit. P/NP or letter grading.

109HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an introduction to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or projects. Not open for credit for students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive study of language, literature, and culture. May not be repeated for credit. P/NP or letter grading.

109HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an introduction to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or projects. Not open for credit for students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive study of language, literature, and culture. May not be repeated for credit. P/NP or letter grading.

100A-100B-100C. Advanced Modern Chinese. (4–4–4) Lecture, three hours; discussion, one hour. Enforced 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 etiquette 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: 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 etiquette 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. Enforced 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 etiquette in business conduct, Chinese economic and business climate, language of business, and trade regulations, resources and environment, and business case studies. Letter grading.


103. Topics in Chinese Language and Culture. (4) Lecture, two hours; discussion, two hours. Recommended preparation: one to two years of college-level Chinese. Chinese language and culture for special
policies. Exploration of interdependent relation between Chinese language and culture. Introduction to basic concepts in sociocultural linguistics, discourse analysis, and technology to analyze Chinese language and cultural conventions expressed through verbal and nonverbal means. Major current language use as reflected in various types of media: film, television, Internet, advertisement, etc. May be repeated for credit. P/NP or letter grading.

C105A-C105B. Advanced Chinese Rhetoric and Critical Thinking. (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101B or Chinese placement test. Designed for students who have completed secondary education or equivalent in Chinese. Focus on developing sophisticated Chinese rhetorical strategies in speaking and writing and critical thinking skills through use of Chinese language. Chinese texts and multimedia materials used as basis for in-depth study of composition 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 majoring in general Chinese at advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with concurrent course from Comparative Literature 1A, 1B, or 1C. P/NP or letter grading.

108FL. Special Studies: Readings in Chinese. (2) Seminar, two hours. Enforced requisite: course 100C or 100 or Chinese placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Chinese to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

110A-110B-110C. Introduction to Classical Chinese. (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Designed for students who have completed secondary education or equivalent in Chinese. To be scheduled with course 110B. P/NP or letter grading.

C120. 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 C240. Letter grading.

124. Taiwanese Language and Culture. (4) Lecture, two hours; discussion, one hour. Enforced requisite: course 3 or 8 or Chinese placement test. Taival, or Taiwanes (also known as Minnan, Hoklo, or Hokkien, depending on context or region), is language that most Taiwanese in daily lives, including everyday interaction and communication, entertainment, social and cultural events, etc. Examination of various manifestations of Taival in different forms of cultural production, including cinema, television, series, pop music, animation, Gezai opera, glove puppetry, and other media. Discussion also of how these media have represented Taiwan’s society and shaped its cultural landscape. P/ NP or letter grading.

130A-130B. Readings in Modern Chinese Literature. (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100 or Chinese placement test. Readings and discussion of works of modern Chinese literature. Each course may be taken independently for credit. Letter grading.

151. World Sinophone Literature: Theories and Texts. (4) Lecture, two hours; discussion, one hour. Readings in original language. Exploration of Sinophone as analytic category for literature written in Sinic languages. Theories of Sinophone and literary texts from Taiwan, Hong Kong, Malaysia, China, and elsewhere. Letter grading.

153. Chinese-Language Film and Culture. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Enforced requisite: course 100C or 100 or Chinese placement test. Viewing and discussion of Chinese films, along with relevant readings in Chinese. Letter grading.

157. Contemporary Chinese Popular Culture. (4) Lecture, three hours; discussion, one hour. Examination of various aspects of modern and contemporary popular culture in China, Taiwan, and Hong Kong from cultural studies perspective. Genres and media in context of recent social movements, cultural politics, and culture and society. May be repeated for credit with topic change. Concurrently scheduled with course C257. Letter grading.

159. Variable Topics in Culture and Society in China. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. History of Chinese-language cinemas, with emphasis on mainlobe, diaspora, gender, and race to inform thinking and discussion of relevances from a cultural politics perspective. Letter grading.


C144. Translation Workshop: Modern Chinese Texts. (4) Lecture, three hours; discussion, one hour. Preparation, editing, and translation of Chinese texts into English, and preparation of Chinese translations for a fiction 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. 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 C250A. P/ NP or letter grading.

150B. Chinese Literature in Translation: Tradition- al Narrative and Fiction. (4) Lecture, three hours; discus- sion, one hour. Knowledge of Chinese not re- quired. Examination of formation and development of Chinese narrative traditions from Tang to mid-Qing peri- od (7th-18th centuries). Readings from biographical writings, fiction, drama, legal cases, etc., with em- phasis on different narratives and their cultural assumptions and intersections. Exploration of important issues in context of imperial China, in- cluding order and chaos, self and other, desire and transcendence, gender forms and transgression, vio- lence and justice. May be taken independently for credit. Concurrently scheduled with course C250B. Letter grading.

151. Chinese Literature in Translation: Modern Lit- erature. (4) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 9H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Chinese not required. Examination of reading of representative works from 1900 to present in English translation. Letter grading.

152. Topics in Contemporary Chinese Literature and Culture. (4) Lecture, two hours; discussion, one hour. Knowledge of Chinese not required. Investigation of various topics in contemporary Chinese literature and culture, including politics and poetics of Chi- nese postmodernism, nationalism, feminism, mass cul- ture, and media. Letter grading.


154. Introduction to Chinese Cinema. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. History of Chinese-language cinemas, with emphasis on mainlobe, diaspora, gender, and race to inform thinking and discussion of relevant issues. Letter grading.

155. Topics in Chinese Cinema. (4) Lecture, two hours; discussion, one hour. Knowledge of Chinese not required. Critical study of films from China, Hong Kong, Taiwan, and Chinese di- aspora. Examination of aesthetics, genres, directors and stars, other arts and media, and cultural and polit- ical histories. May be repeated for credit with topic change. P/ NP or letter grading.

156. Variable Topics in Culture and Society in Tai- wan. (4) Lecture, three hours; discussion, one hour. Designed for seniors. Knowledge of Chinese not re- quired. Examination of relationship between culture (art, literature, film) and society in Taiwan. Reading, audio and visual material, discussion, and develop- ment of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C257. Letter grading.

157. Contemporary Chinese Popular Culture. (4) Lecture, three hours; discussion, one hour. Examination of various aspects of modern and contemporary popular culture in China, Taiwan, and Hong Kong from cultural studies perspective. Genres and media in context of recent social movements, cultural politics, and culture and society. May be repeated for credit with topic change. P/ NP or letter grading.

158. Variable Topics in Culture and Society in Chi- na. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese language not required. Examina- tion of relationship between culture (art, literature, history, film) and society in China. Reading, audio and
visual material, discussion, and development of culmi

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2. Introduction to Chinese Buddhist Texts. (4) Lecture, three hours, discussion, one hour. Recommended requisite: course 100A or Japanese 110A or Korean 100A or Chinese placement test. Readings in Buddhist texts written in literate Chinese and taken from translated Indian sutras, indigenous exegetical materials, Chinese apocryphal scriptures, and Ch’i’an writings. Problems in translation from Indo-European languages into Chinese are considered, as is the range of Chinese Buddhist terminology. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.


175T. 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 B.C.E.), 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 C273. Letter grading.

175SLL. Community-Based 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 B.C.E.), 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. Examination of movement to revitalize and re-interpret teachings of Confucius during Tang, Song, Yuan, and Ming dynasties, with consideration of both neo-Confucian philosophy and social action. Letter grading.

180. Chinese Mythology and Supernatural. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Survey of corpus of traditional Chinese religious tales, myths, and beliefs, preserved in a variety of early texts, later adaptations in dramatic and fictional works, and evidence from visual arts. Letter grading.

182. 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 of trade networks, in response to early global trade. Investigation based on archaeological study of porcelain, tracing movement from kilns around Chinese trading ports to shipwrecks and consumer societies in Southeast Asia and colonial Americas. As one of most important commodities on trans-Pacific voyage, close association of porcelain and trade with international piracy in traditional history of late Qing provides new angle for understanding dynamics of early global trade and industries. Letter grading.

183. Archaeological Landscapes of China. (4) (Same as Anthropology M116R.) Lecture, three hours; discussion, one hour (when scheduled). Declared 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. 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.

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 or simple processes. What is crime? Are there crimes so terrible that they merit special kinds of punishment? How is punishment decided and by whom? What happens if justice is not carried out? Consideration of these questions as they apply to premodern China from multiple perspectives: legal codes and casebooks, literary re-imaginings of trials, depictions of postmortem punishment; and tales of supernatural retribution. Discussion of how legal and penal systems of China have been represented in West. Letter grading.

185. Food and Love in Chinese Culture. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Based on studies of cultural, historical, anthropological, and archaeological materials, introduction to how Chinese have been engaging themselves in foods of field eating and love making. Letter grading.

186. Archaeology in China. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Early Chinese past, type of artifacts, beginnings of scientific archaeology, and surveys of major excavations of sites of all periods. Letter grading.


191A. Topics Research Seminar: Classical China. (4) Seminar, three hours. Designed for juniors/seniors. Research seminar on selected topics in premodern Chinese literature, thought, and culture. Readings in original Chinese and English. May be repeated for credit. Individual contract required; see undergraduate adviser. P/NP or letter grading.

191B. Topics Research Seminar: 20th-Century China and Taiwan. (4) Seminar, three hours. Designed for juniors/senior. Research seminar on selected topics in modern and contemporary language and culture from China and Taiwan. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

192. Individual Studies in Chinese. (4) Tutorial, to be arranged. 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.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

201. Modern Chinese Literary History. (4) Lecture, three hours. Designed for graduate students. Discussion of history of modern Chinese literature, focusing on sources, controversies, major literary genres, and critical approaches to studying relationship between literature and history. Letter grading.

201A-211B. Seminars: Classical Chinese Poetry. (4) Seminar, three hours. Preparation: reading knowledge of literary Chinese. May be repeated for credit with consent of instructor. In Progress (211A) and letter (211B) grading.

202. Issues in Sinophone Literature. (4) Seminar, three hours. Exploration of selected topics in a wide range of literature, literary genres, and literary languages by ethnic minority writers in China, and literature written by those living outside China across world, especially in Malaysia, Taiwan, Singapore, and the U.S. S/U or letter grading.


209. Issues in Sinophone Literature. (4) Seminar, three hours. Preparation: reading knowledge of literary Chinese. May be repeated for credit with consent of instructor. In Progress (211A) and letter (211B) grading.


211A-211B. Seminars: Classical Chinese Poetry. (4) Seminar, three hours. Preparation: reading knowledge of literary Chinese. 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, and critical approaches. May be repeated for credit with consent of instructor. Letter grading.

213A-213B. Chinese-Language Cinema. (4) Seminar, three hours; film-viewing laboratory, two hours. Advanced topics in Chinese-language cinematic expression 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, including 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 Linguistics. (4–4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese functional linguistics (discourse and grammar, corpus linguistics, and Chinese language change). May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.

226A. Seminar: Critical Discourse Analysis. (4) Seminar, three hours. Critical reading and discussion of selected topics in Critical Discourse Analysis. Specific topics vary from year to year. May be repeated for credit with consent of instructor. In Progress (226A) and letter (226B) grading.

230A-230B. Seminars: Selected Topics in Modern Chinese Literature. (4–4) Seminar, three hours. Selected readings in 20th-century Chinese literature, emphasizing fiction. Discussion of individual research projects may be to be written for credit. In Progress (230A) and letter (230B) grading.

C237. How to Read Chinese Poetry. (4) Lecture, two and one half hours; discussion, one hour. Preparation: one year of literary Chinese. From earliest vestiges of Chinese poetry more than two thousand years ago, to doors of contemporary Chinese homes, and to San Francisco’s Angel Island in late 19th century, few students of China have pre-modern East Asia go far without suddenly encountering pervasive presence of Chinese poetry (shī). Examination of why poetry, roles poetry plays in Chinese culture, and how to read it. Basic beginning in learning how to read Chinese classical poetry. Study is topical and accumulative, designed to have effect of building blocks and progressive overlays. Introduction to language, forms, and history of shī poetry. Study of smallest integral unit of Chinese lyric poetry, individual words and their selection; formal elements and rhetorical features; modes of perception and how it governs lyric description, narrative, and argumentation. Consideration of presuppositions and limitations of what poetry is and how it is to be read. Concurrently scheduled with course C137. S/U or letter 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 contexts. 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 semiotics and anthropology. In Progress (241A) and letter (241B) grading.

242A-242B. Chinese Classics and Exegetical Traditions. (4–4) Seminar, three hours. Recommended preparation: command of literary Chinese. Reading and discussion of key texts from one traditional Chinese classic (Confucian Five Classics, others), with introduction to exegetical history, secondary scholarly

254A-254B. 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 include selected genres from Chou through Ch’ing periods. Topics in drama selected from ts’ai-chü and ch’üan-ch’ü-ch’ü. May be repeated for credit with consent of instructor. In Progress (254A) and letter (245B) grading.

2545A-2545B. Seminars: Traditional Chinese Narrative and Drama. (4–4) Seminar, three hours. Preparation: important issues in context of imperial China. Seminar topics alternate yearly between traditional narrative and drama, with emphasis on generic, hermeneutical, and historical approaches. Topics in narrative include selected genres from Chou through Ch’ing periods. Topics in drama selected from ts’ai-chü and ch’üan-ch’ü-ch’ü. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

C250A. Lyrical Traditions. (4) Lecture, three hours; discussion, one hour. Readings of poetic and critical writings of traditional China, 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. Knowledge of Chinese not required. Examination of formation and development of Chinese narrative traditions from Tang to mid-Qing periods. In-depth study of selected literary and graphic writings, fiction, drama, legal cases, etc. with emphasis on different narrative conventions and their cultural assumptions and intersections. Exploration of meta-narrative of cultural discourse, 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 to modern. In Progress (256A) and letter (256B) grading.

C257. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours; discussion, one hour. Preparation: graduate students. Knowledge of Chinese literature not required. Examination of currents of relationship between culture (art, literature, film) and society in Taiwan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C156. Letter grading.


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 from early 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 distinct 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 about Chinese archaeology and different interpretations of 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.

251. 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.

252A-252B. Seminars: Selected Topics in Chinese Cultural History. (4–4) Seminar, three hours. Discussion and research on main trends and evolution of 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 (252A) and letter (252B) grading.

257A. Seminar: Research Topics in Premodern China. (4) Seminar, three hours. Selected topics in pre-modern Chinese literature, history, or religion, with emphasis on textual readings and independent research. S/U or letter grading.

257B. Seminar: Research Topics in Modern Chinese and Sinophone Culture. (4) Seminar, three hours. Seminar topics in modern Chinese and Sinophone culture, with major emphasis on independent research. S/U or letter grading.

Filipino

Lower-Division Courses

1. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. 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.

3R. Introductory Filipino Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Filipino. Training in reading and writing skills at elementary level, equivalent to completion of one year of Filipino. 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.
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, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

8. Elementary Filipino: intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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. Advanced Filipino: Reading and Writing. (4) Lecture, three hours. Enforced requisite: course 6 with grade of C or better or Filipino/Tagalog placement test. Designed to move students with intermediate level of proficiency to advanced proficiency in competency in reading, writing, speaking, and listening in Filipino language. Coverage of skills in effective use of language: description, narration, exposition, and argumentation. How to analyze different elements of writing and reading of pieces from several genres of contemporary Filipino writing. P/NP or letter grading.

109. Advanced Tutorial Instruction in Filipino. (2) Tutorial, two hours. Requisite: course 6 or Filipino/Tagalog placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Filipino. May be repeated for credit. P/NP or letter grading.

130A. Filipino Short Story. (4) Lecture, three hours. Enforced requisite: course 6 or Filipino/Tagalog placement test. General background knowledge on how Filipino writers view themselves and society, historically and diachronically. Sample of short stories written in Filipino/Tagalog language with some written in English for purposes of contrasting rhetoric, themes, and sensibilities. P/NP or letter grading.


155. Topics in Filipino Cinema and Literature. (4) Lecture, three hours; discussion, one hour. Knowledge of Filipino not required. Critical analysis of language and culture, history, and sociopolitical issues as represented in Filipino films and/or literature. May be repeated once for credit. P/NP or letter grading.

170. People, Society, and Culture of Philippines. (4) Lecture, two hours; discussion, one hour. In-depth examination of Philippines, from early history and colonial formation under both Spain and U.S. to struggle for independence, Martial Law period, profound socio-economic issues of post-Marcos republic, including extreme poverty and global economic phenomena of overseas Filipino workers in 21st century. Readings and selected films/videos contextualize specific topics under discussion. General orientation to political history and social conditions of Philippines. Study of various equal opportunities of Filipinos in present day, as means of engaging with essential societal issues. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to 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 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.

189HHC. 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.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Hindi-Urdu

Lower-Division Courses

1. Introductory Hindi-Urdu. (6) Lecture, two hours; discussion, three hours. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Intermediate Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Elementary Hindi-Urdu Reading and Writing. (6) Lecture, five hours. Recommended preparation: speaking and listening skills in Hindi-Urdu. Training in reading and writing skills at elementary level, equivalent to completion of one year of Hindi. P/NP or letter grading.

69. 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.

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. Letter grading.

Indonesian

Lower-Division Courses

1. Introductory Indonesian. (6) Lecture, three hours; discussion, two hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

2. Introductory Indonesian. (6) Lecture, three hours; discussion, two hours. Requisite: course 1 with grade of C or better. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

3. Intermediate Indonesian. (6) Lecture, three hours; discussion, two hours. Requisite: course 2 with grade of C or better. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/NP or letter grading.

4. Intermediate Indonesian. (5) Lecture, five hours. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/NP or letter grading.

5. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/NP or letter grading.
6. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 2 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. 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 perspectives through offering discussion 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 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.

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.

100A-100B-100C. Advanced Indonesian. (4–4–4) Lecture, three hours; discussion, 10 hours; writing, three hours. Enforced requisite: course 2 with grade of C or better. 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 6 or Indone- sian placement test and permission of the instructor. Independent study to help students develop advanced proficiency in oral and written Indonesian. May be repeated for credit. P/NP or letter grading.

198. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors credit 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 credit 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 for those with some basic knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

2. Intermediate Modern Japanese for Kanji Native Students. (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 for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

3. Intermediate Modern Japanese. (5) Lecture, two hours; discussion, three hours. Enforced 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. Continuation of course 1. P/NP or letter grading.

4. Intermediate 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. Continuation of course 2. P/NP or letter grading.

5. Intermediate Modern Japanese. (5) Lecture, two hours; discussion, two hours. Requisite: course 3 or 8 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. 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.

6. Intermediate Modern Japanese. (5) Lecture, two 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.

7. Intermediate Modern Japanese. (5) Lecture, two 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. Intermediate 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, grammar, and Japanese character structures. Emphasis on auditory comprehension, writing skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

9. 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. Intensive course equivalent to courses 4, 5, and 6. Readings in modern Japanese, with emphasis on comprehension and structural analysis. Offered in summer only. P/NP or letter grading.

200A-200B-200C. Advanced Modern Japanese. (4–4–4) Lecture, three hours; discussion, two hours. Requisite: course 8 or 10 with grade of C or better or Japanese placement test. Course 200A with grade of C or better or Japanese placement test is enforced requisite.
100R. Third-Year Advanced Reading in Modern Japanese. (4) Lecture, three hours. Enforced requisites: courses 100B or 100C with grade of C or better or Japanese placement test. Not open to students with credit for course 100A or who have learned, from whatever source, enough Japanese to qualify for more advanced courses. May be taken concurrently with course 100A. Development of overall competency in reading advanced-level Japanese materials. Instruction in understanding grammar and practical expressions, as well as expansion of kanji and vocabulary to achieve higher ability in comprehension of written materials in Japanese. Translations from Japanese to English, as well as from English to Japanese. P/NP or letter grading.

100S. Advanced Modern Japanese: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisites: course 6 or 10 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 100A, 100B, and 100C. Learning Japanese language with emphasis on socio-cultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audietaapes. Reading with focus on linguistics features, writing summaries and opinions, oral activities, and project work. P/NP or letter grading.

101A. Kanji for Advanced Reading. (4) Lecture, three hours. Enforced requisites: course 100C or 100S with grade of C or better or Japanese placement test. Development of ability in kanji recognition and 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 101B and 101C. Also suitable for heritage 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. P/NP or letter grading.

101B-101C. Fourth-Year Japanese: Advanced Reading I, II. (4-4) Lecture, three hours; discussion, one hour; course 100B 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. 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 requisites: 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 requisites: course 100C or 100S with grade of C or better. Development of listening and speaking abilities for students who need focused attention to these skills. Also suitable for graduate students who need to advance their public speaking ability. Not intended for those who are at higher level in these skill areas. P/NP or letter grading.

104. Business Japanese. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 100C or 100S with grade of C or better or Japanese placement test. Designed to prepare students to function in the context of business transactions. To be successful business person, one must be equipped with advanced specialized oral and written communication skills and as such requires four credits. Oral and written business communication, social etiquette in business conduct, Japanese economic and business climate, business law and regulations, sources and environment, and business case studies. P/NP or letter grading.


124. Language and Culture of Ryukyu/Okinawa. (4) Seminar, three hours. Enforced requisites: course 6 or 10 or Japanese placement test. Research seminar with reading, discussion, linguistic analysis, and development of culminating project. Letter grading.


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4) Seminar, three hours. Enforced requisites: course 100C or 100S or Japanese placement test. Readings and discussion of works by modern Japanese writers. Each course may be taken independently for credit. Letter grading.


140. Introduction to Kambun and Other Literary Styles. (4) Lecture, three hours. Enforced requisites: 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.

140-140B-140C. Topics in Japanese Literature and Philosophy. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Discussion of philosphical topics such as experience, identity, vision, technology, in light of Japanese literary texts. Concurrently scheduled with course C250. Letter grading.


146. Topics in Japanese Literature and Philosophy. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 70A. Advanced translations of modern Japanese literature. May be taken independently for credit. P/NP or letter grading.

152. Language and Culture of Ryukyu/Okinawa. (4) Seminar, three hours. Enforced requisites: course 6 or 10 or Japanese placement test. Research seminar with reading, discussion, linguistic analysis, and development of culminating project. Letter grading.

154. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from 16th century to post-World War II. P/NP or letter grading.


159. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Critical examination of selected current research papers in sociology, anthropology, and Japan. Letter grading.


162. Language and Culture of Ryukyu/Okinawa. (4) Seminar, three hours. Enforced requisites: course 6 or 10 or Japanese placement test. Research seminar with reading, discussion, linguistic analysis, and development of culminating project. Letter grading.

167. Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Examination of selected current research papers in comparative literature. P/NP or letter grading.

161. Religious Life in Modern Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Religious transformations accompanying rapid industrialization, urbanization, militarism, and defense of the Pacific War, including analyses of Shinto mythology, secular positivism, Buddhist reform movements, new religions, and continuing role of traditional village/family religious rites. Letter grading.


170. Japanese Tales of Supernatural. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Readings of fictional works that feature supernatural beings, including Shinto gods, Buddhas, bodhisattvas, Yin-yang divinities, ghosts, various types of demons, shape-shifting foxes and raccoon dogs, snakes, and dragons. Exploration of different supernatural literary 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 Plays 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. Focus on theme of floating world (ukiyo-e) of entertainment, including pleasure quarters, theater district, and realm of fiction. Letter grading.


C182. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Lectures/discussions on native religious rituals (festivals) and observances of Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief forms. Concurrently scheduled with course C282. 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 Research Seminars: Classical Japan. (4) Seminar, three hours. Research seminar on selected topics in premorden 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.


197. Individual Study: (4) Tutorial, to be arranged. Limited to juniors/senior and graduate students who desire more advanced or specialized instruction in Japanese. 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 adviser. P/NP or letter grading.

Graduate Courses


C201A-C201B. Introduction to Reading Japanese Academic Texts. (4-4) Lecture, three hours. Requisite: course 100A or 100F. Course 201A is requisite to 201B. Designed for graduate students. Introduction to modern Japanese academic texts, both spoken and written, for linguistic analysis. Discussion of current sociolinguistics from perspective of contrastive study of Japanese and Korean. Concurrently scheduled with course CM127. Letter grading.

C202. Survey of Functional Linguistics. (4) Lecture, four hours. Survey of recent empirical and theoretical research in several areas of functional linguistics, that has served as backbone for development of Japanese discourse linguistics. May be repeated for credit with consent of instructor. S/U or letter grading.


C262. Fundamentals in Discourse Data Analysis. (4) Lecture, three hours. Designed to prepare students to conduct research in natural discourse data, both written and spoken, for linguistic analysis. Discussion of discourse taxonomy, data collection methodologies, data organization, analytical frameworks. Letter grading.

C25A-C25B. Seminars: Selected Topics in Modern Japanese Fiction. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (C25A) and letter (C25B) grading.

C240A-C240B. Seminars: Selected Topics in Japanese Literature. (4-4) Seminar, three hours. May be repeated for credit. In Progress (C240A) and letter (C240B) grading.

C241A-C241B. Seminars: Japanese Classics. (4-4) Seminar, three hours. Prose and poetry from early times to 1868. May be repeated for credit with consent of instructor. In Progress (C241A) and letter (C241B) grading.


C245A-C245B. Seminars: Medieval Japanese Literature. (4-4) Seminar, three hours. Preparation: one year of classical Japanese. Selected readings in travel poetry, travel diaries, and other genres of Japanese travel literature of Heian, Kamakura, Nanbokucho, and Muromachi periods. May be repeated for credit with consent of instructor. In Progress (C245A) and letter (C245B) grading.


C259. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours; discussion, one hour. Examination of relationship between culture (art, literature, film) and society in Japan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C159. S/U or letter grading.


C265A-C265B. Seminars: Japanese Buddhist Texts. (4-4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (C265A) and letter (C265B) 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. Emphasis on fundamentals of standard pronunciation, grammar, and Korean characters, with emphasis on religio-magical purposes and symbolic structure of these arts. In Progress (270A) and (letter 270B) grading.

2. Elementary Korean for Korean-Heritage Speakers. (5) Lecture, two and one half hours; discussion, two hours. Enforced requisite: course 2A 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 2. P/NP or letter grading.

3. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours (when scheduled). Enforced requisite: course 2 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 2. P/NP or letter grading.

4. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 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. P/NP or letter grading.

5. Intermediate Modern Korean. (5) Lecture, six hours. Enforced requisite: course 4A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

6. Intermediate Modern Korean. (5) Lecture, five hours. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

7. Intermediate Modern Korean. (5) Lecture, four hours; discussion, two hours. Enforced requisite: course 6A 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 6. P/NP or letter grading.
Upper-Division Courses

100A-100B-100C. Advanced Modern Korean. (4-4-4) Lecture three hours; discussion, two hours. Intensive study with lecture course instructor to explore Korean placement test. Course 100A with grade of C or better. Course 100B with grade of C or better. Course 100C or Korean placement test. Intended to improve reading, writing, and listening 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. P/NP (undergraduates), S/U (graduates), or letter grading.

C105A-C105B-C105C. Reading Korean Academic Texts. (4-4-4) Lecture, three hours. Enforced requisites: course 101C or Korean placement test. Intended to improve reading, writing, and listening 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. P/NP or letter grading.

106A-106B-106C. Superior Korean. (4-4-4) Lecture, three hours. Recommended preparation: course 101C. May not be taken concurrently with course 102A, 102B, or 102C. Use of speaking, listening, reading, and writing skills to participate effectively, or understand without difficulty any practical, social, and professional topics, whether those topics are familiar or not. Each course may be taken independently for credit. P/NP or letter grading.

1085L. Superior Korean with Service Learning. (4) Lecture, three hours; fieldwork, two hours. Recommended preparation: concurrent 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. Requisite: course 101C or Korean placement test. Study to increase understanding of variety of 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 noninteractive 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. Requisite: course 101C or Korean placement test. Study to increase understanding of variety of 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. P/NP or letter grading.

108FL. Special Studies: Readings in Korean. (2) Seminar, two hours. Enforced requisites: courses 100C or Korean placement test. Students must be concurrently enrolled in main course. Development of professional and academic proficiency in oral and written Korean to understand many speaking contexts 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. P/NP or letter grading.

124. Topics in Korean Language and Culture. (4) Lecture; discussion, one hour. Recommended preparation: one to two years of college-level Korean. Introduction of basic concepts in sociolinguistics, discourse analysis, and multimedia resources to analyze 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 prose (e.g. film/television drama, talk shows, music videos, digital discourse, advertisements, etc.). P/NP or letter grading.


130A-130B. Readings in Modern Korean Literature. (4-4) Lecture, three hours. Enforced requisites: course 101C or Korean placement test. Designed to improve reading skills for students who have studied Korean to advanced level, and enhance understanding of Korean culture and society. Covers Korean academic texts (books, 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. Required: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of modern and contemporary Korean literature. Concurrently scheduled with course C225. P/NP or letter grading.

153. Korea West Encounters. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Exploration of major cross-cultural encounters between Korea and West from late 16th to early 20th century and writings of leading historical figures. Letter grading.

154. Contemporary Korean Culture through Literature and Film. (4) Lecture, three hours; discussion, one hour. Required: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Use of fiction and film to explore contemporary Korean culture in cross-cultural context. P/NP or letter grading.

155. Topics in Korean Cinema. (4) Lecture, one hour; discussion, one hour; film viewing, three hours. Knowledge of Korean not required. Historical and crit-
159. Variable Topics in Culture and Society in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of relationship between culture and society. 1976–.

160. Introduction to Korean Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 100B or Chinese 110C or Korean placement test. Examination of premodern Korean Buddhist texts written in Sino-Korean and taken from indigenous doctrinal materials and philosophical writings, Korean Buddhist apocryphal scriptures, rural and urban historical and literary. Coverage varies. May be repeated for credit with topic change. Letter grading.

165. Introduction to Korean Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 100C or Chinese 110C or Korean placement test. Reading premodern Korean Buddhist texts written in Sino-Korean and taken from indigenous doctrinal materials and philosophical writings, Korean Buddhist apocryphal scriptures, rural and urban historical and literary. Coverage varies. May be repeated for credit with topic change. Letter grading.

172. Topics in Korean Christianity. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical 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. Surveys a survey of Korean thought from earliest records to 19th century, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in China, Japan, and West. P/NP or letter grading.

176. Introduction to Korean Confucian Texts. (4) Lecture, three hours. Enforced requisite: course 100C or Chinese 110C or Korean placement test. Reading in premodern Korean Confucian texts. Covers thought from earliest records to 19th century, including philosophical writings, Korean Confucian apocryphal scriptures, rural and urban historical and literary. 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.

177. 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, thought about politics, nationalism, and economic thinking and practice. Concurrently scheduled with course 230A.

185. Education and Society in Korea. (4) Lecture, three hours. Enforced prerequisite: course 101C, Chinese 110C. Review of basic Western and Korean references on education and literacy. Introduction to Korean language and literature, and survey of basic bibliographical material. In addition, introduction to most important primary sources in student’s field of specialization. Letter grading.

Graduate Courses


202. Variable Topics in Korean Culture. (4) Seminar, three hours. Advanced course that explores Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. May be repeated for credit. S/U or letter grading.

205A-205B. Reading Korean Academic Texts. (4) Lecture and discussion. Three hours. Restricted to students who have studied Korean to advanced level, with coverage in Korean on materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with courses 105A-105B. S/U or letter grading.

206C. Reading Korean Academic Texts. (4) Lecture and discussion. Three hours. Restricted to students who have studied Korean to advanced level, with coverage in Korean on materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with courses 106C-106B. S/U or letter grading.

Readings in Korean intellectual history and its social, political, and economic background from the Neo-Confucianism in 14th century to 20th century. 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 capitalism and communism, intellectual history, social movements, and cultural history. Letter grading.

212. 19th-Century Korea. (4) Seminar, three hours; discussion, one hour. Requisite: course 180B or 180C. Proseminar covering crucial period from coronation of Sunjong to the beginning of Korea becoming a modern nation. From 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, hierarchy of genres, rise of literary kinds and forms, periodization, and topics in literature. One particular area of focus to be nationalist canon that governs literary studies in Korea and West. Letter grading.

220. Structure of Korean. (4) Lecture, three hours; discussion, two hours. 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 linguistic universals, with brief introduction to formation, typological features, and phonological structure of Korean. Concurrently scheduled with course CM112A. S/U grading.

224A-224B. Seminars: Selected Topics in Korean Linguistics. (4-4) Seminar, three hours. Critical reading and discussion of selected topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology) and pedagogy. In Progress (224A) and letter (224B) grading.


230A-230B. Seminars: Literary Translation from Korean. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean. In consultation with instructor, students select works to be translated. Devoted to skill of producing accurate and readable translations, with emphasis on problems and techniques unique to poetry and prose. At end of term, students expected to produce publishable translations. May be repeated once with consent of instructor. S/U or letter grading.

235A-235B. Seminars: Topics in Modern Korean Literature. (4-4) Seminar, three hours. Preparation: at least five years of Korean. Recommended: reading knowledge of Chinese or Japanese. Limited to graduate students. Study of selected period, movement, theme, or author of 20th-century Korean literature, with critical review of secondary works in Western and Korean languages. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.


245A-245B. Seminars: Classical Korean Poetry. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean. Critical reading and analysis of classical Korean poetry, including discussion of literary and cultural contexts of poetic genres. Nature of corpus of codex that make meaning possible. Review of latest Korean scholarship. May be repeated once with consent of instructor. In Progress (245A) and letter (245B) grading.


260. Korean Buddhism. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between indigenous Korean culture and Buddhism, Buddhist—paying equal attention to change and continuity, with emphasis on chronological development. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through research papers, original 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.

265A-265B. Seminars: Korean Buddhist Texts. (4-4) Seminar, three hours. Selected topics in Korean Buddhist texts. Coverage varies. In Progress (265A) and letter (265B) grading.

272. Seminar: Korean Christianity. (4) Seminar, three hours. Coverage of representative scholars' writings on history of Korean Christianity, with focus on Protestantism. Issues include politics, identities of Korean Christians, and Western missionaries, church growth and decline, medical, educational, literary, and women's work, and Christianity's encounters with Korean religions, and foreign missions. S/U or letter grading.

274. Seminar: Readings in Korean Christianity. (4) Seminar, three hours. Reading of recent secondary sources of Christianity in Korea, covering doctoral dissertations, journal articles, book chapters, and books in English and Korean, in order to help graduate students understand recent scholarship on diverse topics in Korean Christianity. Letter grading.


295A-295B. Seminars: Topics in Traditional Korean Cultural History. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean or literary Chinese. Discussion and research on major topics in Korean cultural history, such as Confucianization of Korean society, Practical Learning movement of late Choson dynasty, or Korean reactions to Western learning and enlightenment movements of 19th century. May be repeated for credit. In Progress (295A) and letter (295B) grading.

296A-296B. Seminars: Topics in Modern Korean Cultural History. (4-4) Seminar, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Graduate research seminar on selected topics in modern Korean history. In Progress (296A) and letter (296B) 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. P/NP grading.

M60. Religion in Classical India: Introduction. (5) (Same as Religion M60D.) Lecture, three hours; discussion, one hour. Introduction to religions of classical India—Vedic, Brahmanical, Hindu, Jain, and Buddhist—paying equal attention to change and continuity, with emphasis on chronological development. 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 research papers, original 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.

90HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through research papers, original 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

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 Bhagavad-Gita 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 Gita, with emphasis on development of vocabulary. May be repeated for credit with consent of instructor. P/NP (undergraduates), S/U (graduates), or letter grading.
150. 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, with some East and South Asian texts. Critical analysis of language and culture in South Asian diaspora as represented in films and/or literature. May be repeated once for credit. P/NP or letter grading.

155. Topics in South Asian Cinema and Literature. (4) Lecture, three hours. Knowledge of Hindi/Urdu not required. Critical analysis of language and culture in South Asian diaspora as represented in films and/or literature. May be repeated once for credit. P/NP or letter grading.

C160. Buddhism in India. (4) Same as Religion M161D. Lecture, three hours; discussion, one hour. Knowledge of Asian 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 inscriptions. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Southeast Asian Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) Same as Asian Languages and Cultures C250. Lecture, three hours; discussion, one hour. Knowledge of Hindi/Urdu not required. Exploration of the evolution of writing systems of Indian subcontinent and Southeast Asia, and the political and cultural significance of writing systems.

50. Southeast Asian Societies and Cultures. (5) Lecture, three hours; discussion, one hour. General introduction to Southeast Asia. Focus on the regions of Southeast Asia. Designed to acquaint students with broad themes that characterize societies, cultures, and civilizations of this vital part of globe, and to provide students with an understanding of the region's position and function in the modern world. Study of wide variety of supernatural creatures and local specialists that populate imagination of this diverse region. Exploration also of unique regional concepts of power, 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. Knowledge of Asian languages not required. Introduction to modern literatures 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.


150. Indigenous Peoples of Southeast Asia. (4) Lecture, two hours; discussion, one hour. In Southeast Asia, indigenousness 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 vary across 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 orientation to modern plight of indigenous peoples in Southeast Asia, but situates polities within wider global discussions about indigenous activism 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 are encouraged to engage in comparative discussion with regard to indigenous peoples in Americas and elsewhere. Concurrently scheduled with course C250. P/NP or letter grading.

Upper-Division Courses

C120. Ghosts, Spirits, and Witches: Supernatural in Southeast Asia. (4) Lecture, two hours; discussion, one hour. From magical tattoos, tree spirits, and faith healing to angry ghosts and disemboweled flying monkeys, exploration of the supernatural in Southeast Asia, the world that includes the island arc 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 also of unique regional concepts of power, 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.

M243. Translation Workshop: Premodern Sanskrit, Pali, and/or Prakrit Texts. (2) Seminar, two hours. Requisite: course 110C. Translation, grammatical analysis, and discussion of selections from premodern Sanskrit, Pali, and/or Prakrit texts. S/U grading.

C260. Buddhism in India. (4) 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 inscriptions. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Graduate Courses

M222A-M222B. Vedic. (4–4) Same as Indo-European Studies M222A-M222B and Iranian M222A-M222B. Lecture, three hours; preparation: knowledge of Sanskrit equivalent to course 110C. Characteristics of Vedic dialect and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.

230. Selected Readings in Sanskrit Texts. (4) Lecture, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

234A-234B. Introduction to Panini’s Grammar. (4–4) Three lectures. Preparation: knowledge of Sanskrit equivalent to course 110C. Reading of selected passages of text, with introduction to Panini’s technique. S/U 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 con- nect to social historical contexts nationally, regionally, or globally. May be repeated for credit, P/NP or letter grading.

160. Majorities and Minorities in Southeast Asia. (4) Lecture, two hours; discussion, one hour. Focus on political, cultural, and historical relationships between majority ethnic groups and minorities in possibly most culturally, religiously, and ethnically diverse regions of the world—Southeast Asia. Provides productive frame- work to discuss nature of Southeast Asia’s extreme di- versity, representing both multiculural societies, in comparative and historical context—both remote and, to some extent, globally. Discussions and assignments around gaining appreciation of experiences and perspectives of regions’ many different types of mi- nority peoples. Critical examination of majorityhood as lived experience and as factor that informs minority rights issues. Includes discussion of significant current events related to minority-majority relationships in Southeast Asia, P/NP or letter grading.

170A-170B-170C. Topics in Southeast Asian Stud- ies. (4-4-4) Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and film. 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 selected topics in greater depth through supplemental readings, papers, or other activities 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 meeting with 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 Southeast Asian. (4) Tuto- rial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or spe- cialized treatment of one language offered in program beyond introductory and intermediate courses cur- rently offered. Individual intensive study, with sched- uled meetings with faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see academic coordinator. P/NP or letter grading.

Graduate Courses

205. Southeast Asian Culture and History. (4) Sem- inar, three hours. Designed to expose graduate stu- dents to study of Southeast Asia as region across multiple disciplines. Discussions led by instructor and guest faculty members about core elements of their discipline in Southeast Asia, as well as latest trends in theory and research in that area. Reading of classic texts, as well as research articles representing current state of field. S/U or letter grading.

C220. Ghosts, Spirits, and Witches: Supernatural in Southeast Asia. (4) Lecture, two hours; discussion, one hour. From magical tattoos, tree spirits, and faith healing to Sweeping and disembodied fi- sh-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 di- verse region. Exploration also of unique regional con- cepts of power, morality, and justice that animate and frame tropes towards supernatural phenomena in modern world. Concurrently scheduled with course C120, S/U or letter grading.

C240. Zombies, Peoples, Societies, and Cultures of Upland Southeast Asia. (4) Lecture, three hours; dis- cussion, one hour. Recommended requisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and crit- ical issues affecting them. Topics include culture, his- tory, human rights, ethnicity, religion, politics. Concur- rently scheduled with course C140. S/U or letter grading.

C250. 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 recog- nized as indigenous peoples. Ideas about indigeneity also vary across time and space, among indigenous peoples themselves, in ways that do not always align with course C120. S/U or letter grading.

Thai

Lower-Division Courses

1. Introductory Thai. (5) Lecture, three hours; discus- sion, two hours. 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; discus- sion, two hours. 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; discus- sion, two hours. 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. Rein- forcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa- tion and composition; reading of selected texts. P/ NP or letter grading.

5. Intermediate Thai. (5) Lecture, five hours. En- forced requisite: course 4 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa- tion and composition; reading of selected texts. P/ NP or letter grading.

6. Intermediate Thai. (5) Lecture, five hours. En- forced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa- tion and composition; reading of selected texts. P/ NP or letter grading.

7. Thai Script. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Thai and Thai placement test; Thai 100A 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.

8. Intermediate Thai. (5) Lecture, five hours. Rein- forcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa- tion and composition; reading of selected texts. P/ NP or letter grading.

9. 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.

10. Honors Seminars. (1) Seminar, three hours. Lim- ited to 20 students. Designed as adjunct to lower-divi- sion lecture course. Concurrently scheduled as adjunct to lower-division lecture course. In- terdisciplinary 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 stu- dents. Honors content noted on transcript. P/NP or letter grading.

Vietnamese

Lower-Division Courses

1. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Intermediate Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more ad- vanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Viet- namese or have had no formal instruction in Viet- namese. Coverage of basic writing, reading, writing, daily conversation, and polite forms. P/NP or letter grading.
2A. Introductory Vietnamese for Heritage Learners.
(2) 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. Advanced Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per unit; 99C (graduated research). Enforced requisite: course 100C with grade of C or better 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

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 Vietnam, particularly its culture. Readings include both authentic original works and simplified texts. May be taken independently for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Vietnamese. (2) Tutorial, two hours. Enforced requisite: course 6 or Vietnamese placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Vietnamese. May be repeated for credit. P/NP or letter grading.

CM155. Topics in Vietnamese Cinema and/or Literature. (Same as Asian American Studies M173.) 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. May be concurrently scheduled with course C155. S/U or letter grading.

170. Variable Topics in Vietnamese Linguistics, Languages, and Cultures. (4) Lecture, three hours. Knowledge of Vietnamese may be required. Critical analysis of language and culture in Vietnam, exploring notion of Vietnam as culture area, surveying literary landscape through poetry and short stories. May be repeated for credit. P/NP or letter grading.

180A. Vietnam: History and Civilization to 1558. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Vietnamese society and culture from prehistory to early 19th century, with emphasis on examination of ways in which interactions between indigenous and Chinese/Southeast Asian political and cultural forces helped shape religious, literary, and social traditions. P/NP or letter grading.

180B. Vietnam: History and Civilization, 1558 to Present. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history or civilization course. Exploration of Vietnamese history and civilization during colonial and postcolonial eras, with emphasis on profound changes that swept through Vietnamese society, including extended period of political and military conflict. P/NP or letter grading.

M186. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Korean M186.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as basis for comparison. Modern experiences of colonized Vietnam and Korea have many significant parallels, including imposition of colonial control, transition to modernized societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

Graduate Courses

C255. Topics in Vietnamese Cinema and/or Literature. (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. May be concurrently scheduled with course C155. S/U or letter grading.

297B. Topics in Contemporary Vietnamese Culture. (4) Seminar, three hours. Selected topics in Vietnamese contemporary culture, including diasporic culture, with emphasis on cultural production. Primary materials combined with theoretical readings. S/U or letter grading.
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

Entry to the Major

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, and one semester of general chemistry.

Recommended before transfer for timely degree completion: one additional semester of general chemistry and one computer programming course (preferably in Python).

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Atmospheric and Oceanic Sciences 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.

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

The Major
Atmospheric and Oceanic Sciences 199 (independent research) taken for 4 units may be units to satisfy one upper-division elective. Thesis approval required from faculty adviser and submitted to department student affairs officer.

Atmospheric and Oceanic Sciences/Mathematics BS

Capstone Major
The Atmospheric and Oceanic Sciences/Mathematics major is a designated capstone major. Students acquire experience in conceiving and executing research projects designed to evaluate hypotheses and complete an individual project or thesis selected with the assistance of the program advisers and faculty mentor. The topic should reflect integrative application of mathematics to atmospheric and oceanic sciences. Students are expected to prepare a significant independent piece of work that applies knowledge gained in their coursework in a new and unique way.

Learning Outcomes
The Atmospheric and Oceanic Sciences/Mathematics major has the following learning outcomes:

- Fundamental knowledge of the atmospheric and oceanic sciences, and the mathematical tools that enable research to be conducted
- Identification of potential research areas of interest
- Experience in conceiving and executing research projects designed to evaluate hypotheses through courses that stress oral and written presentation of research results
- Proposition, execution, and evaluation of a research project with the assistance and supervision of a faculty mentor
- Tangible capstone product, such as a written thesis, that will be archived and possibly disseminated within and beyond the department

Entry to the Major

Transfer Students
Transfer applicants to the Atmospheric and Oceanic Sciences/Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one and a half years of calculus-based physics.

Recommended before transfer for timely degree completion: linear algebra, differential equations, and one computer programming course (preferably in Python).
Entry to the Major

Transfer Students
Transfer applicants to the Climate Science 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 semester of calculus-based physics, one general chemistry course, and one introductory statistics course.

Recommended before transfer for timely degree completion: one additional semester of calculus-based physics, and one computer programming course (preferably in Python).

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Atmospheric and Oceanic Sciences M71 or Program in Computing 10A, 90, Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, and one course selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5, 7, 31, 32, 33, 34, and 14B (or 20A and 20B) may also be required, depending on atmospheric and oceanic sciences upper-division course selection.

The Major

Required: Six mathematics courses, including Mathematics 115A, 131A, 134, and three elective courses selected from 115B, 131B, 135, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170B; six upper-division atmospheric and oceanic sciences courses, including two core courses selected from Atmospheric and Oceanic Sciences 101, 103, 112, and two elective courses selected from C110, C115, M120, C144, C160, C170, 180, and any two additional upper-division atmospheric and oceanic sciences courses.

One capstone senior projects/thesis course, Atmospheric and Oceanic Sciences 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.

Policies

Preparation for the Major

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.

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

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) four from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, 107, C110, C111, C112, CM114, C115, M120, 121, 123, 130, 135, 141, C144, 145, 150, C160, C170, 180, 199, and (2) three 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, 5, 90, 186 (must be taken twice), Chemistry and Biochemistry 110A, 110B, 113A, C113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, C119A, 122, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 135, 136, 146, 170A, 170B, Physics 110A, 110B, 112, M122, 131, 132. Other relevant courses from related disciplines may be substituted with prior approval of the department.

At least five courses approved for the minor must be upper division.

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, M120, C170, Physics 110A, 110B, M122.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

One course may be taken on a Passed/Not Passed basis; each of the other minor courses must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Graduate Major

Atmospheric and Oceanic Sciences MS, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees which are 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, weather, and climate 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 predicting it to society, with emphasis on science’s role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/NP or letter grading.

2. Air Pollution. (4) Lecture, three hours; discussion, one hour. Causes and effects of high concentrations of pollutants in atmosphere. Topics include nature and sources of gaseous and particulate pollutants, their transport, dispersion, modification, and removal, with emphasis on atmospheric processes on scales ranging from individual sources to global effects; interaction with biosphere and oceans; stratospheric pollution. P/NP or letter grading.

3. Meteorology and Extreme Weather. (4) Lecture, three hours; discussion, one hour. Nature and causes of weather phenomena, including atmospheric global circulation, clouds and storms, lightning and precipitation, fronts and cyclones, and tornadoes and hurricanes. P/NP or letter grading.

4. Climate of Other Worlds. (4) Lecture, three hours; discussion, one hour. Introduction to atmospheres of planets and the outer solar system using information obtained during recent planetary exploration program. Elementary description of origin and evolution of atmospheres on planets. Climates on planets, conditions necessary for evolution of life, and its resulting effect on planetary environment. P/NP or letter grading.

M7. Perils of Space: Introduction to Space Weather. (4) (Same as Earth, Planetary, and Space Sciences M7.) Lecture, four hours. Concepts of plasma physics, dynamic sun, solar wind, and Earth’s magnetosphere and ionosphere. Space storms and substorms and their impacts on astronauts, spacecraft, and surface power and communication grids. 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 three-hour and illuminating many paths of discovery at UCLA. P/NP grading.

51. Fundamentals of Climate Science. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3B or 32A, Physics 1B or 5B or 5C or 6B, with grades of C or better. Development of fundamental understanding of climate science. Topics include global energy balance, atmospheric radiation and greenhouse effect, surface and boundary layer dynamics, atmospheric and oceanic circulation, global hydrologic cycle, modes of climate sensitivity, climate modeling, and climate change. P/NP or letter grading.

M71. Introduction to Computing for Geoscientists. (4) (Same as Earth, Planetary, and Space Sciences M71.) Lecture, four hours; laboratory, 90 minutes; outside computing study, six to 10 hours. Introduction to writing programs, visualization of geoscientific data, and comparison with models. P/NP or letter grading.

58. Lower-Division Seminar. (4) Seminar, three hours; variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

99H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. 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


101. Fundamentals of Atmospheric and Thermodynamics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3B or 31B or Life Sciences 30B, Physics 1B or 5B or 5C or 6B. Introduction to thermodynamics (flows of heat, energy, and work) and dynamics (forces) of atmosphere. Topics covered include hydrostatic balance, first law of thermodynamics, dry and moist adiabatic processes, and atmospheric stability, equations of motion of atmosphere, with applications to geostrophic, gradient, and thermal winds. Letter grading.

102. Climate Change and Climate Modeling. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 3C or 32A, Physics 1B or 6C, with grades of C or better. Global environmental issues in climate change due to human activities or natural climate variations. Quantitative introduction to new science of climate modeling to understand and predict these changes. Physical processes in climate system. Atmospheric and oceanic circulation. El Niño and year-to-year climate variability. Greenhouse effect and global warming. P/NP or letter grading.


104. Fundamentals of Air and Water Pollution. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Chemistry 14B or 20B. Chemistry and physics of air and water pollution, including photochemistry, acid rain, air pollution meteorology and dispersion, ground-water and surface water pollution, chemical cycling, air/water interface, global atmospheric change. Letter grading.

M105. Introduction to Chemical Oceanography. (4) (Same as Geology and Environmental M139.) Lecture, three hours; discussion, one hour. Introduc- tory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition and biogeochemical processes of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Investigation of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes. Letter grading.

M106. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) (Same as Geography M118.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to address complex problems in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

107. Biological Oceanography. (4) Lecture, three hours; discussion, one hour. Introductory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Overview of microorganisms and primary productivity of physical, chemical, and biological processes governing these processes in the ocean. Examination of processes that control distribution, abundance, and productivity of marine organisms and their spatial and temporal variability. Letter grading.

C110. Advanced Dynamic and Synoptic Meteorology. (4) Lecture, three and one half hours. Requisite: course 101. Weather map analysis, thermodynamic diagrams, satellite interpretation, severe weather fore-
casting, isotropic analysis from non-isotropic quasi-geostrophic omega equation. Concurrently scheduled with course C227. P/NP or letter grading.

C110L. Advanced Dynamic and Synoptic Meteorology Laboratory. (2) Laboratory, two hours. Comprehensive weather forecasting exercises and map discussions. Prerequisite: two semesters of atmospheric and oceanic sciences study. 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 after the course. Python programming language, together with ScikitLearn ML library, and covering essential theory to understand what algorithms do. Focus on solving typical problems that arise in the area of ML, including supervised learning (regression and classification) and unsupervised learning (clustering and dimensionality reduction). Lectures and programming exercises. Concurrently scheduled with course C204. P/NP or letter grading.

112. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Prerequisite: one course from Life Sciences 350B, 40, Mathematics 3B, 31B, 41A, Statistics 110. Recommended prerequisite: course 51, 101, 102, 103, 104, 105, M106, 107, Environment 175, or equivalent background for reading quantitative scientific literature in climate change. Lecture and laboratory, 90 minutes. Recommended prerequisite: course 51, 101, 102, 103, 104, 105, M106, 107, Environment 175, or equivalent background for reading quantitative scientific literature in climate change. Examination of these issues from local, regional, and global, and emphasizing-implications with strong emphasis on scientific literacy and understanding of climate change 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 ocean acidification. Examination of all these challenges, as well as associated stresses on human and natural systems. Examination of these issues from local, regional, and global, and emphasizing-implications with strong emphasis on scientific literacy and understanding of climate change 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 ocean acidification. Examination of all these challenges, as well as associated stresses on human and natural systems. Concurrently scheduled with course C227L. P/NP or letter grading.

123. Climate Adaptation Solutions. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: course 103 or M105. Circulation, biogeochemistry, biota, water quality, measurement techniques, data management, implementation, and management for California’s coastal ocean, including coastal measurement cruise and term project (paper and presentation). Letter grading.

130. California’s Ocean. (4) Lecture, four hours. Recommended prerequisite: course 103 or M105. Circulation, biogeochemistry, biota, water quality, measurement techniques, data management, implementation, 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; discussion, one hour. Prerequisites: courses 103, 105. Review of main impacts of human activities on ocean, from warming and acidification to overfishing, pollution, overexploitation of marine resources. Discussion of limits of governance and sustainability. Introduction to global ocean datasets and IPCC-class model output. Student-led presentation on review and significant papers from scientific literature. Letter grading.

141. Introduction to Atmospheric Chemistry and Air Pollution. (4) Lecture, three hours; discussion, one hour. Prerequisites: Chemistry 14B or 20B, Mathematics 3A or 11A, 11B, 11C, or Physics 6A, 6B, 6C. Theory and application of atmospheric radiation, clouds, and aerosols. Introduction to 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 ocean acidification. Examination of all these challenges, as well as associated stresses on human and natural systems. Examination of these issues from local, regional, and global, and emphasizing-implications with strong emphasis on scientific literacy and understanding of climate change 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 ocean acidification. Examination of all these challenges, as well as associated stresses on human and natural systems. Examination of these issues from local, regional, and global, and emphasizing-implications with strong emphasis on scientific literacy and understanding of climate change 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 ocean acidification. Examination of all these challenges, as well as associated stresses on human and natural systems. Concurrently scheduled with course C240B. P/NP or letter grading.

155. Introduction to Ecosystem-Atmosphere Interactions. (4) Lecture, three hours; discussion, one hour. Exchanges of energy, moisture, atmospheric trace gases, and momentum between terrestrial ecosystems and the atmosphere. Introduction to physical processes at the earth-atmosphere interface, and air chemistry feedbacks between physical environment and physiological status of plants and soils. Topics include canopy structure and function, leaf energy balance, and carbon and water fluxes between plants, soils, and atmosphere. Letter grading.

C160. Remote Sensing of Atmosphere and Oceans. (4) Lecture, three hours. Prerequisite: Physics 1C or 6B. Theory and techniques of remote sensing; atmospheric spectroscopy, scattering, and polarization; passive and active techniques; relevant satellite systems; inversion methods; remote sensing of clouds, aerosols, temperatures, and fluxes; and time-constant systems; remote sensing of ocean and biosphere. Concurrently scheduled with course C240B. P/NP or letter grading.


M117. Advanced Computing in Geosciences. (4) (Same as Earth, Planetary, and Space Sciences M117.) Lecture, four hours. Enforced prerequisites: course M71, Mathematics 3A, 3B, and 3C (or 31A and 31B). Use of high level computing language to program microcontrollers to acquire laboratory-style experimental data. Mfist modeling and quantitative comparisons of acquired data sets and theory. Fortran, MATLAB, Python. Example papers, experiments, and exercises from disciplines within geosciences. P/NP or letter grading.

180. Numerical Methods in Atmospheric Sciences. (4) Lecture, three hours; discussion, one hour. Prerequisites: Mathematics 3A, 3B, and 3C (or 31A and 31B). Use of high level computing language to program microcontrollers to acquire laboratory-style experimental data. Mfist modeling and quantitative comparisons of acquired data sets and theory. Fortran, MATLAB, Python. Example papers, exercises, and experiments from disciplines within geosciences. P/NP or letter grading.

181. Analysis and Prediction of Weather Systems. (8) Laboratory, three hours; course required. Course C110. Limited to junior/senior Atmospheric and Oceanic Science majors. Introduction to collection, display, and application of weather observations and numerical forecasting data, with focus on fundamental models, including daily weather map discussions, and analysis and interpretation of numerical weather prediction model outputs. Letter grading.

C182. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced prerequisite: course 101 from M105. Recommended: one probability course. 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 selection and validation techniques, cross validation, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C205A. P/NP or letter grading.
186. Operational Meteorology. (2) Laboratory, six hours. Requisite: course C110. Limited to junior/senior Atmospheric, Oceanic, and Environmental Sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Introduction to weather forecasting including data analysis, air pollution, marine weather, fire weather, and public use. Includes daily weather map discussions and visits to observing, radiosonde, and radar installations. Letter grading.


188. Special Topics in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; discussion, one hour. Departmentally-sponsored experimental or temporary courses taught by visiting faculty members. 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, senior seminar, or research group. Open to Honors majors and minors. May be repeated for credit with maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Atmospheric and Oceanic Sciences. (2) Seminar, two hours. Preparation: basic knowledge of meteorology (equivalent to course 3) and lower-division calculus, chemistry, and physics; course 101 strongly recommended. Limited to departmental majors and minors. Survey of current research projects in atmospheric and oceanic sciences. Each course instructor to expose 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.

199C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual intensive study, with assigned reading and tangible assignments, under faculty and student mentor. Credit to juniors/seniors. Individual intensive study, with assigned reading and tangible assignments, under faculty and student mentor. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199D. Directed Research in Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to juniors/senior. 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

C204A. Introduction to Machine Learning for Physical Sciences. (4) Lecture, 90 minutes; laboratory, 90 minutes. Designed for physical sciences students. Practical, hands-on introduction to seven of most popular algorithms of machine learning (ML). Students gain practical skills in industry or research immediately, using popular Python programming language, together with ScikitLearn ML library, and covering essential theory to understand what algorithms do. Focus on 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.

C205A. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Introduction to plasma circulation, and disturbances; ionospheres in sun, solar wind, magnetospheres, and ionspheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamical) approaches. 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.

C205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours; laboratory, one hour. Solar, inter-planetary, magnetospheric, ionospheric, auroral, geomagnetic phenomenological and theoretical background for studies in space physics. Contextual understanding of ionospheric disturbance; ionospheric disturbances; solar-terrestrial coupling. May be repeated for credit. Individual contracts required. S/U or letter grading.

C206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Air Interaction. (4) (Same as Geography 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 ideal canopy model, radiation, heat and CO2 fluxes; satellite and satellite data application. Laboratory sessions included. S/U or letter grading.

C209. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Corequisites: graduate atmospheric, oceanic, and climatic science courses. Lectures, readings, and projects on current issues in projections of future anthropogenic climate change; design and use of resources from Coupled Model Intercomparison projects; topics from large multicentrist climate assessments, including Intergovernmental Panel on Climate Change (IPCC) issues in modeling current climate, including natural climate variability, paleoclimate, and 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 M229L.) Lecture, three hours. Enforced requisites: Physics 1C. Planetary atmospheric structure and composition, radiative transfer, and climate dynamics. Topics include origin and evolution of atmospheres, paleoclimate, Earth's present-day atmosphere, atmospheric thermodynamics, plane-parallel radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hysteresis. S/U or letter grading.

211. Planetary Atmospheres and Teleconnections in Atmosphere/Ocean. (4) Lecture, three hours. Requisite: course 201B. Dynamics of stationary and low-frequency waves in Earth's atmosphere and ocean, with applications to remote impacts of climate variability. Propagation of barotropic and baroclinic Rossby waves in spatially varying flow. Interactions with storm tracks and mean flow. Teleconnection patterns. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

212A. Numerical Methods in Geophysical Fluid Dynamics. (3) Lecture, three hours. Requisite: course 201A. Basic numerical methods for initial-boundary value problems in fluid dynamics, with emphasis on applications to atmospheric and oceanographic phenomena. Finite difference and finite volume methods and computational error. Linear and nonlinear computational instability. Computational modes and computational boundary conditions. Nonlinear shallow-water equation model. S/U for nonmajors at discretion of major department) or letter grading.


M235. Ocean Biogeochemical Dynamics and Clim-
ate. (4) (Same as Ecology and Evolutionary Biolog-
y, M238.) Lecture, three hours. Interaction of ocean-
biogeochemical and climate systems. Bio-
geochemical processes controlling carbon dioxide
and oxygen in oceans and atmosphere over time-
scales from millions of years to centuries. Anthro-
pogetic and natural forcings of global carbon cycle.
Response of ocean ecosystems to past and fu-
ture global changes. Use of isotopes to study ocean
biogeochemical cycles and climate. Interactions
between biogeochemical cycles on land and in ocean.
S/U or letter grading.

236. Terrestrial Biogeochemical Dynamics and Cli-
mate. (4) Lecture, three hours. Corequisites: graduate
atmospheric, oceanic, hydrological, and climate sci-
cence courses. Biogeochemical cycles in terrestrial
biomes. Carbon/water/energy/nutrient dynamics.
Observational techniques and results. Interactions
of terrestrial biogeochemical cycles with climate system
on timescales of centuries to seconds. Use of iso-
topes to study land biogeochemical cycles and cli-
mate. Anthropogenic perturbations of global terrestrial
biogeochemical cycles and climate feedbacks. Re-
sponse of land ecosystems to past and future global
changes. S/U or letter grading.

CM237A. Aquatic Geomicrobiology: Metabolisms.
(Formerly numbered CM237.) (Same as Earth, Plan-
etary, and Space Sciences CM214A.) Lecture, three
hours. Recommended requisite: course M105 or
Earth, or Planetary, and Space Sciences CM114.
Study of fundamental geomicrobiological metab-
lisms and biogeochemical reactions occurring in aquatic
systems and how these processes interact with en-
vironment. Metabolisms include photoautotrophic (anox-
eytic and nongenetic photosynthesis), chemo-
autotrophic (nitrogen, carbon, sulfur), helicobacter-
photoheterotrophic (organic matter degradation with
light), and chemotrophic (iron, nitrogen, manga-
nese, methane, and sulfur oxidation) pathways. Intro-
duction to aquatic geochemistry. (Adenylate
phosphate production, Gibbs free energy, chemios-
mosis, thermodynamic calculations) and biological
isotope fractionation. Concurrently scheduled with
course CM114A. S/U or letter grading.

CM237B. Aquatic Geomicrobiology: Environ-
ments. (4) (Same as Earth, Planetary, and Space
Sciences CM214B.) Lecture, three hours. Required
requisite: course CM237A. Broad overview of aquatic
geomicrobiological processes in diverse environ-
mental settings (e.g., sediments, microbial mats, water
column, wetlands, cold seeps, hydrothermal vents,
deep biosphere), and interactions of the marine
biogeochemical cycle on Earth. Concurrently sched-
uled with course CM114B. S/U or letter grading.

M238. How to Write and Publish Scientific Papers.
(Formerly numbered 238.) (Same as Earth, Plan-
etary, and Space Sciences M237.) Lecture, three
hours. Recommended preparation: planning to prepare or
in the process of preparing manuscripts. Introduction to
process of scientific manuscript writing and pub-
lishing. Offers insight into fun and frustration of man-
uscript writing, important rules for manuscript struc-
turing and scientific language, and advice on how to
deal with review process. Students gain familiarity
with general principles of successful publishing pro-
cess. Addresses different stages of manuscript writing
and publishing by answering when are data ready for
publishing, where to publish, how to structure manu-
script, best way to present data, how to properly get
out message, which writing ethics to consider, how to
effectively use citation program, how to communicate
with reviewers and editors, and efficient ways to manage
manuscript writing and publishing.

240A. Radar Meteorology. (4) Lecture, three
hours. Radar detection of spherical and nonspherical par-
ticles; use of radar in studying size distributions of
cloud and precipitating particles, precipitation inten-
sity and rate, mesoscale horizontal motions, horizontal
wind speed, and turbulence; radar observations of convec-
tive clouds, thunderstorms, tornadoes, hurricanes,
squall lines, and fronts; clear air echoes. S/U for ma-
jors with consent of instructor after successful com-
pletion of written and oral comprehensive examination
and for nonmajors at discretion of major department) or
letter grading.

240B. Remote Sensing of Atmosphere and
Oceans. (4) Lecture, three hours. Required: Physics
C203A. Use of remote sensors for atmospheric spectroscopy, scattering, and polariza-
tion; passive and active techniques; relevant satellite
systems; inversion methods; remote sensing of clouds;
Gibbs free energy, chemosynthesis, temperature, trace
and cultivation; remote sensing of oceans and bio-
sphere. Concurrently scheduled with course C160.
S/U for majors with consent of instructor after suc-
cessful completion of written and oral comprehensive
examination and for nonmajors at discretion of major
department) or letter grading.

244A. Atmospheric Radiation. (4) Lecture, three
hours. Required: course C203A. Introduction to radi-
ational methods for solar and thermal infrared radiative
fluxes and heating rates in clear, aerosol, and cloudy
atmospheres for climate studies. Topics include line-
by-line and semi-spherical and terrestrial radiative
transfer. Selection of aerosol size distribution and
cloud microphysical properties. Consequences for
distribution of solar and terrestrial radiation. Focus
on methods for radiative transfer in Rayleigh and Lorenz/Mie atmo-
spheres, and global radiative equilibrium. Use of user-
friendly computer programs to perform calculations
of radiative fluxes and heating rates in various at-
mospheric conditions for climate applications. S/U or
letter grading.

244B. Radiation and Climate. (4) Lecture, three
hours; laboratory course. Recommended requisite:
undergraduate course C203B. Radiation budget of Earth/atmosphere system observed
from satellites. Introduction to one-dimensional radia-
tive-convective and energy-balance climate models.
Climatic impact of increases in greenhouse gases and
anthropogenic aerosols. Climatic impact of changes
in solar constant, solar insolation, and volcanic eruption.
Radiative forcing in global climate models: clouds and
aerosols. Role of radiation in interannual variability. S/U or letter grading.

245. Aerosol-Climate Interactions. (4) Lecture,
three hours. Required: course C203B. Recommended
requisite: Undergraduate course C203B. Derivation of MHD equations with two fluid as-
pects, generalized Ohm’s law, small amplitude waves,
continuities, shock waves, and instabilities. Appli-
cations to statics and dynamics of solar wind and planet-
ary magnetospheres and to solar wind/magne-
tosphere/ionosphere coupling. S/U for majors with consent of instructor after successful com-
pletion of written and oral comprehensive examination
and for nonmajors at discretion of major department) or letter grading.

250B. Solar System Microscopic Plasma Proces-
s. (4) Lecture, three hours. Required: course C205A.
Adiabatic charged particle dynamics; incoherent radia-
tion processes; collective effects in plasma; propaga-
tion characteristics of electrostatic and electromag-
etic waves; interplanetary interaction between charged particles and plasma waves. S/U for
majors with consent of instructor after successful com-
pletion 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; iono-
spheric control of magnetospheric phenomena. S/U
(for majors with consent of instructor after successful com-
pletion of written and oral comprehensive examination
and for nonmajors at discretion of major department) or letter grading.

257B. Radiation Belt Plasma Physics. (4) Lecture,
three hours. Required: course C205B. Turbulent plasma instabilities and their relation to satellite observations
and magnetospheric structure. Processes responsible
for source, loss, and transport of energetic radia-
tive belt particles. S/U for majors with consent of in-
stigator after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

259. Sources and Losses of Magnetospheric
Plasmas. (4) Lecture, three hours. Selected topics in plasma
across magnetopause, sources for magnetotail, iono-
spheric plasma flow to magnetosphere, precipitation of magnetospheric particles, plasmasphere, and ring cur-
rents. S/U or letter grading.

260. Data Analysis in Atmospheric and Oceanic
Sciences. (4) Lecture, three hours; laboratory, one
hour. Selected topics in data analysis. Introduction to
Principal components analysis, regression, structural equation modeling, and multivariate analysis;
Markov chains. 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,
hours. May be repeated for credit. S/U or letter grading.

271. Seminar: Atmospheric Dynamics. (2) Seminar,
hours. May be repeated for credit. S/U or letter grading.

272A–M272B–M272C. Seminars: Climate Dynam-
s. (2 to 4 each) (Same as Earth, Planetary, and
Space Sciences M270A–M270B–M270C and Geog-
raphy M270A–M270B–M270C.) Seminar, two
hours. Atmospheric and oceanic processes, climate
systems; inversion methods; remote sensing of
atmospheric spectroscopy, scattering, and polariza-
tion. May be repeated for credit. S/U or letter grading.

274. Seminar: Atmospheric Composition and Pro-
cesses. (2) Seminar, one hour. Seminar series cov-
ering talks in broad research area of atmospheric composition and processes. Presentations by internal and
external speakers. May be repeated for credit. S/U or letter grading.

275A–M275B–M275C. Current Research in Space
Physics. (2–2–2) (Same as Earth, Planetary, and
Space Sciences M275A–M275B–M275C.) Seminar,
two hours. Problems of current interest concerning
particles and fields in space. 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
water-related issues. May be repeated for credit. S/U
grading.

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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, model verification, and blended learning. S/U grading.

287. Machine Learning Approaches for Determining Causality in Coupled Earth System Data. (3) Seminar, three hours; discussion, one hour. Determining causality in earth system data is challenging because of strong coupling between different variables. Study of state-of-art statistical approaches that are designed to infer causality between variables that are strongly coupled on different time scales—for example, ocean-atmospheric coupling and land-vegetation-atmospheric coupling, and for nonlinear coupling. Methods include but not limited to Granger causality, generalized equilibrium feedback assessment, step-wise generalized equilibrium feedback assessment, empirical dynamic modeling, and area weighted connectivity. Offers stimulating group learning experience through reading papers and discussion, and if possible, application of some of methods to earth system data. S/U grading.


296G. Regional to Local Modeling of Atmospheric Composition and Climate Interactions. (2) Research group meeting, two hours. Presentation and discussion of research on modeling of air quality and atmospheric composition from local to regional scales. Some topics include research in air quality forecasting to improve predictive capability of pollution episodes (e.g., haze conditions, forest fires, dust outbreaks); data assimilation and inverse modeling. May be repeated for credit. S/U grading.
Undergraduate Major

Bioengineering BS

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

Requirements

Preparation for the Major

Required: Bioengineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Computer Science 31 or Mechanical and Aerospace Engineering 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, C104, C105, C106, C107, C111, C139A, C139B, CM140, CM145, C147, M153, 155, 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.

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 bioprocessing, biomechanics, biomaterials, tissue engineering, biotechnology, biomedical imaging, biomedical optics and lasers, neuroengineering, and biomolecular machines.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics in current and historical 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


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, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 7A. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules such as protein or DNA can be analyzed 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 basic chemical 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 20A, 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. Basics of concepts of polymer chemistry, coupling choice and design of conjugate linkers depending on type of biomolecule and desired application, such as degradable versus nondegradable linkers. Presentation and 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, Mathematics 33B, Physics 1C. Coverage in depth of physical processes associated with biological membranes and channel proteins, with spe-
C107. Polymer Chemistry for Bioengineers. (4) Lecture; four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 100, Mathematics 32B, 33B. Fundamental concepts of polymer synthesis, including step-growth, chain-growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain length, chain length distribution, and chain-end functionality, chain copolymerization, and stereochemistry in polymerizations. Presentation of applications of use of different polymerization techniques. Concepts: step-growth, chain-growth, ring-opening, and coordination polymerization, and effects of synthesis route on polymer properties. Lectures include both theory and practical issues derived from course C105. 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 32B, 33B. Principles governing electrostatics in dielectric media, specific emphasis on electrophysiology. Basic physical properties of dielectrics analyzed. Bioartificial organs, introduction to pharmacokinetics, biochemical reactions in systems of interest to bioengineers, flow, heat transfer, mass transfer, binding events, and sensor design. Course C107 is not requisite to C110. Letter grading.

111. Introduction to Microcontrollers. (4) Lecture; one hour; discussion, one hour; laboratory, three hours. Requisites: Civil and Environmental Engineering 104A (formerly ENgr 104A) or Aerospace Engineering 104A or Mechanical Engineering 20 or Computer Science 31, and Electrical and Computer Engineering 100, or equivalent. Project-based hands-on introduction to basic and advanced concepts and development processes using microcontrollers for projects in robotics and motion, light and sound, sensing and data acquisition, signal amplification and filtering, communication with specialty integrated circuits, and computer interface using Java-based processing language. Use of Arduino platform to explore 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 amplifier (op-amp) circuits, and related material to equip them to make creative software and hardware projects that develop their implementation for subsequent laboratory or design work. Project-based homework has small theory component. Includes final design project. Letter grading.

125. Orthopaedic Biomechanical Engineering. (4) Lecture; four hours; discussion, one hour; outside study, five hours. Requisites: Physics 1A, 1B. Overview of central topics of orthopaedic biomechanical engineering, with focus on orthopaedic implant performance and how to evaluate new and existing implants. Topics include orthopedic and biomechanical terminology and basic anatomy; introduction to free body diagrams and calculations of joint reaction forces; material properties; introduction to stress analysis; mechanisms of fracture patterns and fracture fixation; biomechanics of total joint replacement; contemporary bearing materials and tri-articular design and evaluation of total joint replacements; and introduction to spine biomechanics, spine implants, and future moment testing. Letter grading.

C131. Nanopore Sensing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 100, 110, 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 pure 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 single-channel measurements; techniques in electrolys, nanopore formation, ionic conductance through pores and GHK equation, patch clamp and single channel measurements and instrumentation, noise issues, protein engineering, molecular sensing, DNA analysis, proteomics, and future directions of field. Concurrently scheduled with course C231. Letter grading.

132. Nanogenerators for Bioengineering. (4) Lecture; four hours; discussion, one hour; outside study, seven hours. Addresses fundamentals, materials, processes, manufacturing, and devices fabrication for nanogenerators. Showcases key biomedical applications, in particular device guide for circulatory system, neural system, cell modulation, microbe disinfection, and biodegradable electronics. Functionality of nanogenerators can serve for energy, sensing, and therapy. Nanogenerators can be key components to realize autonomous intelligent closed-loop sensing and therapeutic system on human body for personalized health care to conquer medical fields in Internet of Things era. Letter grading.

C139A. Biomolecular Materials Science I. (4) Lecture; four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foundations of biomolecular science, with emphasis on nucleic acids, proteins, and lipids. Study of how biological and biomolecular systems integrate 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. Students should be able to make simple calculations and estimates that allow them to engage broader discussions on topics such as those in drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grading.

C139B. Biomolecular 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 biomolecular science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as entropically modulated electrostatic interactions, hydrophobic interactions, 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 broader discussions on topics such as those in drug and gene delivery and tissue engineering. May be taken independently for credit. Concurrently scheduled with course C239B. Letter grading.

CM140. Introduction to Biomechanics. (Same as Chemical Engineering CM140.) Lecture; four hours; discussion, one hour; outside study, seven hours. Requisite: Chemical Engineering 45. Selected topics in molecular biology that form foundation of biomechanics. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering, DNA structure and function, 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 biocompatibility, cell culture, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artificial skin, bone and cartilage, blood vessels, neuroengineering, and liver and other organs. Clinical and industrial perspectives of tissue engineering products. Manufacturing constraints, clinical limitations, and regulatory challenges in design and development of tissue-engineered products. Concurrently scheduled with course C247. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (Same as Chemical Engineering M153 and Manufacturing Engineering M153B.) Lecture; three hours; laboratory; four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL. Introduction to general manufacturing concepts, methods, machining, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques that have been widely applied in industry, including various photolithography technologies, physical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for fabrication of microstructures and nanostructures in modern clean-room environment. Letter grading.

C155. Fluid-Particle and Fluid-Structure Interactions in Microflows. (4) Lecture; four hours; laboratory, one hour; outside study, seven hours. Enforced requisites: course 110. Introduction to partial differential equations, assumptions, and simplifications. Analytical framework for calculating simple flows and numerical methods to solve and gain intuition for complex flows. Forces on particles in microfluidic and finite-inertia flows. Flows induced around particles and with without finite inertia and implications for particle-particle interactions. Secondary flows induced by separation and reattachment. Separations by fluid dynamic forces: field-flow fractionation, inertial focusing, structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vocabulary and techniques, design and model fluid microfluidic systems to manipulate fluids, cells, and particles, and optimize mixing using iontophoresis and dielectrophoresis. Students have in arbitrarily structured microchannels over range of Reynolds numbers. Concurrently scheduled with course CM102. Letter grading.

165B. Bioengineering Ethics. (4) Lecture; four hours; discussion; three hours; outside study, five hours. All professions have ethical rules that derive from moral theory. Bioethics is well-established discipline that addresses ethical problems when do fertilized eggs become people? Should ending of life ever be assisted? At what cost should it be maintained? At what point does benefit of committing to building devices out
weigh need to wait for more scientific confirmation of their effectiveness? Bioengineers must be aware of consequences of applying such devices to all living systems. Emphasis on research and writing within engineering environments. Satisfies engineering writing requirement. Letter grading.

C166. Wearable Bioelectronics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Practice of human health care may be on cusp of revolution, driven by unprecedented level of personalization enabled by technology, specifically, transformation of wearable devices from curiosities that provide qualitative information for fitness enthusiasts to scientific instruments that produce clinical-grade data for physicians. Introduction of cutting-edge research in field of wearable bioelectronics. Addresses fundamentals, materials, processes, and devices for wearable bioelectronics, showcasing key applications including device fabrication, manufacturing, and health-care applications. Concurrently scheduled with course C266. Letter grading.

167L. Bioengineering Laboratory. (4) Lecture, two hours; laboratory, four hours; outside study, four hours. Enforced requisites: Chemistry 20L. Laboratory experiments in fluorescence microscopy, microconjugation, soft lithography, and cell culture culminate in design of engineered cell lines. Emphasis on design and growth. Introduction to experimental techniques used in laboratories and their underlying physical or chemical properties. Case studies connect laboratory techniques to current biomedical engineering problems and reinforce experimental design skills. Letter grading.

170. Cell Engineering and Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Preparation: general background on cell biology, mathematics, and differential equations. Comprehensive introduction to cell engineering. Topics include quantitative and experimental analysis of cell behavior such as cell growth, migration and differentiation, adhesion, cell-matrix interactions, cell signaling, tissue remodeling, and immune-modulation/isolation. Letter grading.

175. Machine Learning and Data-Driven Modeling in Bioengineering. (4) Formerly numbered C175.) 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 20B, 3A. Overview of foundational statistical, numerical, and learning methods in bioengineering, focusing on how these techniques can be applied to interpret experimental observations. Foundation in probability, statistical tests, cross-validation, analysis of variance, reproducible computational workflows, dimensionality reduction, regression, hidden Markov models, and clustering. Application of theoretical and practical knowledge of data analysis and machine-learning methods relevant to bioengineering. Application of these methods to experimental data from bioengineering studies. Students become sufficiently familiar with these techniques to design studies incorporating such analyses, execute analysis, and work in teams using similar approaches, and ensure correctness of their results. Letter grading.


177A. Bioengineering Capstone Design I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: courses 167L, 175. Lectures, seminars, and discussions on aspects of biomedical engineering and therapeutic design, including topics such as need finding, intellectual property, entrepreneurship, regulation, and project management. Working in teams, students develop innovative solutions to interdisciplinary problems in medicine and biology. Sourcing and ordering of materials and supplies relevant to student projects. Exploration of different experimental and computational methods. Scientific presentation of progress. Letter grading.

177B. Bioengineering Capstone Design II. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: course 177A. Lectures, seminars, and presentations of student projects on disease models and therapeutic design, including meetings with scientific/clinical advisers and guest lectures from scientists in industry. 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 seminars, and discussions on aspects of computational science, engineering, and medicine. Letter grading.

CM175. Introduction to Biomaterials. (4) Same as Materials Science CM180.) 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 CM278. Letter grading.


180L. System Integration in Biology, Engineering, and Medicine I Laboratory. (4) Lecture, one hour; laboratory, four hours; clinical visits, four hours; outside study, three hours. Corequisite: course 180. Hands-on experimentation and clinical applications of selected medical therapeutic devices associated with cardiovascular and pulmonary disorders. Letter grading.

M182. Dynamic Biosystem Modeling and Simulation in Engineering, Biology, and Medicine. (4) Same as Computer Science M182.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Requisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B, or 31A and 31B. Recommended requisite or corequisite: Mathematics 3C, 32A, or 32T. For undergraduate students in life, computational, engineering, and mathematical sciences. Active learning approach. Introduction to explicit modeling and simulation of dynamic biological systems. Basic methodology for transforming biology, biochemistry, and physiology into system diagrams, graphs, and mathematical expressions for modeling 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 algorithms 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 in research. Letter grading.

M184. Dynamic biosystem modeling and simulation in biomedicine. (4) Same as Computer Science M184.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Requisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B, or 31A and 31B. Recommended prerequisite or corequisite: Mathematics 3C, 32A, or 32T. For undergraduate and graduate students in life, computational, engineering, and mathematical sciences. Active learning approach. Emphasis on effective research reporting, both oral and written. May be repeated for credit with a 493 topic different from the one previously taken. Letter grading.

CM287. Letter grading.

M185. Introduction to Computational and Systems Biology. (2) Same as Computational and Systems Biology M184 and Biocomputational Science M184.) Lecture, two hours; outside study, four hours. Enforced requisites: one course from Civil Engineering M20, Computer Science 31, Computer Science M184, Electrical 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 biology. Letter grading.


CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computational and Systems Biology M186 and Computer Science CM186 and Computer Science M184.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 32A or 32T, 33A, and 33B; or Mathematics 31A, 31B, 32A or 32T, 33A, and 33B. Dynamic biosequence modeling and computer simulation methods for studying biophysical/biomedical processes and systems at multiple levels of organization. Introduction to linear and nonlinear computational, multicompartmental, epidemiological, pharmacokinetic, and other biomimetic modeling applied to life sciences problems at molecular, cellular, organ, and population levels. Students develop a biosequence modeling model, with focus on translating biosequence modeling goals and data into dynamical mathematical models, and implement them for simulation, quantification, and analysis. Emphasize mathematical simulation and computation in biological and medical contexts. Letter grading.

CM187. Research Communication in Computational and Systems Biology. (4) (Same as Computational and Systems Biology M187 and Computer Science CM187.) Lecture, four hours; outside study, eight hours. Requisites: course M182 or CM186 or Computational and Systems Biology M150; and research experience (course 199, Computational and Systems Biology M199, Computer Science 199, or equivalent). Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with research for successful results. Major emphasis on effective writing both oral and written. Concurrently scheduled with course CM187. Letter grading.

188. Special Courses in Bioengineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Emphasize special topics in bioengineering; undergraduates and graduate students are encouraged to design special projects in areas of their interest. Classes meet at times and locations arranged by students and faculty members. May be repeated for credit with topic or instructor change. Letter grading.
Graduate Courses


C202. Human Physiological Systems for Bioengineering I. (4) Formerly numbered CM202.) 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 C102. Letter grading.

C204. Chemical Physics of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; 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. Biomacromolecules such as protein or DNA can be characterized and applied fundamentals of polymer physical chemistry. Investigation of polymer structure and conformation, bulk and solution thermodynamics, and polymer networks, viscoelastivity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation of particular emphasis on biomacromolecules. Concurrently scheduled with course C104. Letter grading.

C205. Engineering of Bioconjugates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecular entities with chemical linkers for use in applications. Chemical linkers 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 different applications 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 biomolecular, interaction of biomolecules such as degradable versus nondegradable linkers. Presentation and discussion of design and synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C105. Letter grading.

C206. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20B, Life Sciences 7A, Mathematics 20B, Physics 1C. Coverage in depth of physical processes associated with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic physical principles governing cation (ionic) electric-mechanical building on complexity to ultimately address action potentials and signal propagation in nerves. Topics include Nernst/Planck and Poisson/Boltzmann equations, transmembrane equilibrium, OHK equations, energy barriers in ion channels, cable equation, action potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conduction, dendritic conductance. Concurrently scheduled with course C106. Letter grading.

C207. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course C204 or C205. Fundamental concepts of polymer synthesis, including step-growth, chain growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain length, chain length distribution, and functionality, chain copolymerization, and stereochemistry in polymerizations. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, ring-opening, and coordination polymerization, and effects of synthesis route on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C107. Letter grading.


M214A. Digital Speech Processing. (4) (Same as Electrical and Computer Engineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: Electrical and Computer Engineering 113. Theory and applications of digital processing of speech signals. Mathematical models of human speech physiology and perception, psychoacoustics, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic speech recognition, and speech coding.

M215. Biochemical Reaction Engineering. (4) (Same as Chemical Engineering CM215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemical Engineering 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. Letter grading.

M217. Biomedical Imaging. (4) (Same as Electrical and Computer Engineering M217.) Lecture, three hours; laboratory, two hours; outside study, eight hours. Requisite: Electrical and Computer Engineering 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Same as Physics and Biology in Medicine M219.) Lecture, three hours; discussion, one hour; outside study, eight hours. Basic principles and applications of nuclear magnetic resonance (NMR), physics, and image formation. Emphasis on hardware, Bloch equations, analytic expressions, image contrast mechanisms, spin and gradient echoes, Fourier transform imaging and structural analysis, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quantitative imaging, and spectroscopy. Letter grading.

220. Introduction to Medical Informatics. (2) Lecture, two hours; outside study, four hours. Designed for graduate students. Introduction to research topics and issues in medical informatics for students new to field. Discussion of this emerging field, current research efforts, and future directions in research. Key issues in medical informatics to expose students to different application domains, such as information systems architecture, telemedicine, computerized clinical decision support, information retrieval and visualization, health services research, and telephone medicine. Emphasis on current research endeavors and applications. S/U grading.

221. Human Anatomy and Physiology for Medical and Imaging Informatics. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to basic human anatomy and physiology with particular emphasis on imaging and visualization of anatomy and physiology through medical images. Topics relevant to acquisition, representation, and dissemination of anatomical knowledge in computerized clinical applications. Topics include chest, cardiac, neurological, gastrointestinal/entourinary, endocrine, and musculoskeletal systems. Intervention to basic imaging physics (magnetic resonance, computed tomography, computed radiography) to provide context for imaging modalities predominantly used to view human anatomy. Geared toward nonphysicians who require more formal understanding of human anatomy/physiology. Letter grading.

223A-223B-223C. 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 imaging and medical informatics system infrastructures. Letter grading.

223A. Programming: Computer Science 31, 32, Program in Computing 20A, 20B. Course 223A is requisite to 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. 223B. Requisite: course 223A. Integrated with topics presented in courses 223A, M227, and M228 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. 223C. Requisite: course 223B. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques used in imaging and visualization data and visualize results. Integrated with topics presented in courses 224A and
M226 to reinforce concepts presented with practical experience. Projects focus on 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 electromagnetic 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 signal generation, localization, and quantization. Image representation and analysis techniques such as Markov random fields, spatial characterization (at-lases), denoising, energy representation and clinical imaging. Image processing and computer-aided diagnosis. Provides 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 information management applications of medical imaging with focus on various advances in field, such as content-based image retrieval, computer-aided detection/diagnosis, and imaging genomics. Introduction to core concepts of 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 and processing, feature representation, 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 CM224A. Topics include separations and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are produced by biological reactors. Letter grading.

M226. Medical Knowledge Representation. (4) Same as Information Studies M253.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Issues related to medical knowledge representation and its application in healthcare processes. Topics include data structures used for representing knowledge (conceptual graphs, frame-based models), ontologies, and high-level knowledge models for representing spatial and temporal information, rule-based implementations, current statistical methods for discovery of knowledge (data mining, statistical classifiers, and hierarchical classifiers), advanced strategies for reasoning and representation of work in constructing ontologies, with focus on problems in implementation and definition. Common medical ontologies, coding schemes, and standardized indices/terminologies (SNOMED, UMLS). Letter grading.

M227. Medical Information Infrastructures and Internet Technologies. (4) Same as Information Studies M254.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, communications, and information 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) implementations. Commonly used medical communication protocols (H.7, DICOM) and current networking applications (patients' records, medical and pharmaceutical systems [HIS, RIS, PACS]). Advances in networking, such as wireless health systems, peer-to-peer topologies, grid/cloud computing, introduction to security and encryption in networked environments. Letter grading.

M228. Medical Decision Making. (4) Same as Information Studies M255.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of 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 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 CM219. Designed for students interested in pursuing research related to development or translation of new magnetic resonance imaging (MRI) technique. Basic to advanced topics, with focus on the 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 surmounts inherent physics and technological limitations. Topics include in-depth sequence simulation, RF pulse design, rapid image acquisition, parallel imaging, compressed sensing, image reconstruction algorithms, and data analysis techniques. Letter grading.

C231. Nanopore Sensing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100, 120, Life Sciences 7A, Physics 118AB. Introduction to techniques and applications of measurements of fluctuating ionic conductance through artificial or protein nanopores. Physics of pore conductance. Applications to single molecule detection and imaging. Introduction to advanced digital and technical applications. History and instrumentation of resistive pulse sensing, theory and instrumentation of electrical measurements in electrolyte-filled nanopore conductance through pores 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 C131. Letter grading.

M233A. Medtech Innovation I: Entrepreneurial Opportunities in Medical Technology. (4) Same as Management M271A.) Lecture, three hours; outside study, nine hours. Designed for graduate and professional students in engineering, dentistry, law, management, and medicine. Focus on understanding how new medical technology products are developed and brought to market. Understanding of market research and development processes to invent and implement new medtech devices that increase quality of clinical care and result in improved patient outcomes in hospital and home settings. Focus on various basic types of medtech and various medtech business models. 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 commercialization opportunities for unmet clinical needs previously identified in course M233A. Steps necessary to commercialize viable medtech solutions. Exploration of concept selection, business plan development, intellectual property filing, financing strategies, and device prototyping. Letter grading.

C239A. Biomolecular Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical foundations of biomaterials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as hydrophobic, hydrogen-bonding, and such modulated electrostatic interactions, hydration and solvation interactions, polymer-mediated interactions, depletion interactions, molecular recognition, and others. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, and tissue engineering. Letter grading.

C239B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C239A is not prerequisite to C239B. Overview of chemical and physical foundations of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of biomolecules, 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 assemblies support biological functions. Illustration of these ideas using examples from bioengineering and biomedical engineering. Case study on current topics, including drug delivery, gene therapy, and tissue engineering. 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 CM147. Introduction to the role of mechanics in biology and biomedical science. Focus on understanding the mechanics of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications to heart and lung mass transport. Fluid/structure interactions and laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) Same as Chemical Engineering CM245.) Lecture, four hours; discussion, two hours; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular biology research tools, and gene expression, directed mutagenesis and protein engineering. DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

CM247. Applied Tissue Engineering: Clinical and Industrial Applications. (4) Same as Chemical Engineering CM247.) Lecture, four hours; discussion, two hours; outside study, seven hours. Requisites: courses CM202, Chemistry 20A, 20B, 20L. Life Sciences 7A, Overview of central topics of tissue engineering, with focus on how would artificial tissues into orthotopic and allogeneic replacements. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artificial skin, bone and cartilage, blood vessels, neurotissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engineering products. Manufacturing constraints, clinical limitations, and regulatory challenges in design and development of tissue-engineering devices. Concurrently scheduled with course C147. Letter grading.

CM248. Introduction to Biological Imaging. (4) Same as Mechanical and Aerospace Engineering ME248.) 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.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4) Same as Mechanical and Aerospace Engineering M250B and Mechanical and Aerospace Engineering M280B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: course M153. Advanced topics in microfabrication processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process in

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integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.


C255. Fluid-Particle 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 and computational fluid dynamics. Analytical framework for calculating simple flows and numerical methods to solve and gain intution for complex flows. Forces on particles in Stokes flow and finite-inertia flows. Applications of particle-laden flows. Letter grading.

C264. Wearable Bioelectronics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Practice of human health care may be on cusp of revolution driven by unprecedented level of personalization enabled by technologies to specifically transform wearable devices from curiosities that provide qualitative information for fitness enthusiasts to sophisticated systems that produce clinical-grade diagnostics and edge research in field of wearable bioelectronics. Addresses fundamentals, materials, processes, and devices for wearable bioelectronics, showcasing key applications including device fabrication, mammalian and health-care applications. Concurrently scheduled with course C166. Letter grading.

271. Biotechnology of Cellular Therapies. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Covers state-of-art and emerging biosensors in context of molecular diagnostics. Students learn about biology and biochemistry pertinent to molecular diagnostics. Students gain thorough understanding of interfaces between biopolymers, biofluids, and electronic devices. Topics include biosensor fundamentals, parameters, modes of detection, sample preparation challenges, microfluidics, and emerging wearable biosensing platforms, as well as proteomics, genomics, and metabolomics. Letter grading.

275. Machine Learning and Data-Driven Modeling in Bioengineering. (4) Formerly numbered C275.) Lecture, four hours; laboratory, two hours; outside study, five hours. Students learn about machine learning methods and their applications to experimental observations. Topics include probabilities, distributions, cross-validation, analysis of variance, reproducible computational workflows, dimensionality reduction, regression, hidden Markov models, and clustering. Students gain theoretical and practical knowledge of machine learning methods. Students learn about the role of machine learning methods in bioengineering. Letter grading.

M281A-M281B-M281C. Evaluation of Research Literature in Neuroengineering. (2-2-2) Same as Electrical and Computer Engineering M281A and Neuroscience M281B and M281C. Lecture, two hours; discussion, one hour; outside study, four hours. Critical discussion and analysis of current literature related to research in neuroengineering. SJU grading.

M283. Anatomy of Central Nervous System. (4) (Same as Neuroscience M283.) Lecture, 75 minutes; discussion/laboratory, two hours. Prior to first laboratory meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Study of anatomical locations of and interactions between ascending and descending sensory and motor systems from spinal cord to cerebral cortex. Covers cranial nerves and brainstem anatomy along with anatomy of ventricular and vascular systems of brain. Subcortical forebrain areas covered in detail. Integrated anatomy laboratory includes brain dissections and overview of tools for MRI analysis. Letter grading.

C276. Biomaterials-Tissue Interactions. (4) Lecture, four hours; outside study, nine hours. Required course CM278. In-depth exploration of host cellular response to biomaterials: vascular response, interface, and clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and role of mechanical forces. Concurrently scheduled with course C179. Letter grading.

281. Advanced Bioconjugate Design and Methods. (4) Lecture, four hours; outside study, eight hours. Requisite: course CM256. Concepts of chemical ligation covered in course C205, and focuses on current state-of-art methods and designs for precise bioconjugate formation, especially in context of live cells. Focus on literature from primary literature, and their applications in bioengineering. Students gain deep understanding of principles of bioconjugation: coupling of biologically active molecules to nanoparticles, or one another, especially for applications in living cells and in vivo. Letter grading.

282. Biomaterial Interfaces. (4) Lecture, four hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapies require comprehensive understanding on surface and interfacial properties. Discussion of morphology and properties of biomaterials, and techniques for designing and fabricating biomaterials with well-defined structure and properties in vitro and in vivo. Letter grading.

C283. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapies require comprehensive understanding on surface and interfacial properties. Discussion of morphology and properties of biomaterials, and techniques for designing and fabricating biomaterials with well-defined structure and properties in vitro and in vivo. Letter grading.

M284. Functional Neuroimaging: Techniques and Applications. (3) (Same as Neuroscience M285, Physics and Biology in Medicine M285, Psychiatry M285, and Psychology M285.) Lecture, four hours. In-depth examination of activation methods, including MRI and electrophysiological methods. Data acquisition and analysis, experimental design, and results obtained in human systems. Students focus on understanding technologies, how to design acquisition imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. SJU or letter grading.

C285. Introduction to Tissue Engineering. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course CM102 or CM202, Chemistry 20A, 20B, 20L. Tissue engineering applies principles of biology and physics to production of living tissues and organs. Concurrently scheduled with course C185. Letter grading.

CM286. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computer Science CM286.) Lecture, four hours; laboratory, two hours; discussion, three hours. Requisites: Life Sciences 30A, 30B, Mathematics 32A or M32T, 33A, and 33B; or Mathematics 31A, 31B, 32A or M32T, 33A, and 33B. Dynamic systems modeling and computer simulation of biological/medical/physical processes and systems at multiple levels of organization, intermediate linear and non-linear control system, multicompartmental, epidemio-
logical, pharmacokinetic, and other biomodeling methods applied to life sciences problems at molecular, cellular, organ, and population levels. Both theory- and data-driven modeling, with focus on transiting biomodeling goals and data into dynamical mathematical models and implementing them using simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model discrimination and analysis. Advanced study and implementation in PC laboratory simulations. Concurrently scheduled with course CM186. Letter grading.

CM287. Research Communication in Computational and Systems Biology (4) (Same as Computer Science CM287) Lecture, two hours; outside study, eight hours. Required. Limited to bioengineering graduate students. Oral and written discussion of current topics in bioengineering, discussion of current research and literature in cell engineering, mechanobiology, immunoenengineering, and regenerative medicine. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295A-295K. Seminars: Research Topics in Bioengineering—Cell and Tissue Engineering. (2) Seminar, two hours; outside study, four hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in cell engineering, mechanobiology, immunoenengineering, and regenerative medicine. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295M. Seminar: Research Topics in Bioengineering—Research in Biological Systems Engineering. (2) Seminar, two hours; outside study, four hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in cell engineering, mechanobiology, immunoenengineering, and regenerative medicine. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295N. Seminar: Research Topics in Bioengineering—Cell and Tissue Engineering. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in cell engineering, mechanobiology, immunoenengineering, and regenerative medicine. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295S. Seminar: Research Topics in Bioengineering—Research in Biophotonics. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in biophotonics, medical imaging, and computational imaging. Student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295U. Seminar: Research Topics in Bioengineering—Research in Modeling of Drug Effects. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in biomedical instrumentation. Discussion of current research and literature in biomedical systems modeling. Computer modeling, circuitry and signal processing. Student presentation of projects every week in research specialty. May be repeated for credit. S/U grading.

295X. Advancement of Modeling for Dynamic Biomedical Systems. (4) (Same as Computer Science M296A and Medicine M270C) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for biological, biomedical, pharmacological, chemical, and related systems. Control system, compartmental, non-compartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other related environments. Problem solving in PC laboratory. Letter grading.

296B. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Computer Science M296C and Medicine M270E) Lecture, four hours; outside study, eight hours. Requisite: course CM286 or M296A or Biomedical 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments and quantifying models, with special focus on optimal sampling techniques and kinetic models. Exploration of efficient computational software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

296C. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Computer Science M296D and Medicine M270F) Lecture, four hours; outside study, eight hours. Requisite: course CM286 or M296B or Biomedical Engineering 295C. Mathematical, statistical, and computational methods for analyzing large complex systems. Methods for automatic discovery and model selection. Support vector machines and other limited data environments. Problem solving in PC laboratory. Letter grading.

296D. Introduction to Computational Cardiology. (4) (Same as Computer Science M296F and Medicine M270E) 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.

296E. Special Studies in Bioengineering. (4) Lecture, four hours; outside study, eight hours. Study of selected topics in bioengineering taught by resident and visiting faculty members. May be repeated for credit. Letter grading.

299. Seminar: Bioengineering Topics. (2) Seminar, two hours; outside study, four hours. Designed for graduate bioengineering students. Seminar by leading faculty and visiting engineers from UCLA, other universities, and bioengineering companies such as Baxter, Amgen, Medtronics, and Guidant on development and application of recent technological advances in bioengineering and their impact on cutting-edge developments and challenges in wound healing models, stem cell biology, angiogenesis, signal transduction, gene therapy, cDNA microarray technology, bioartificial cultivation, nano- and micro-hybrid devices, scaffold engineering, and bioinformatics. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Limited to graduate bioengineering students. Required of all department teaching assistants. May be taken concurrently while holding TA appointment. Seminar on communicating bioengineering and biomedical 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 bioengineering students. Petition forms to request enrollment may be obtained from program office. 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 bioengineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Supervised independent research for MS candidates, including thesis proposal. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Usually taken after students have been advanced to candidacy. S/U grading.
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, 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 analyze new sources of high-throughput experimental data in biology, medicine, and bioengineering. Biotechnology and pharmaceutical companies also seek bioinformatics graduates for applied research on disease—and drug discovery. Medical centers are also increasingly hiring bioinformatics graduates as genomics data become important in medical research and clinical applications.

Graduate Major

Bioinformatics MS, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 computational biology; development of novel methodologies. S/U or letter grading.

202. Bioinformatics Interdisciplinary Research Seminar. (4) Seminar, two hours; discussion, two hours. Concrete examples of how biological questions about genomics data map to and are solved by methodologies from other disciplines, including statistics, computer science, and mathematics. May be repeated for credit. S/U or letter grading.

M221. Introduction to Bioinformatics. (4) (Same as Chemistry CM260A, Computer Science CM221, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M222. Algorithms in Bioinformatics. (4) (Same as Chemistry CM260B, 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 and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, 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 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. Letter grading.

M223. Statistical Methods in Computational Biology. (4) (Same as Biomathematics M271 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: course M221 or Statistics 100A or 200A. Introduction to statistical methods developed and widely applied in bioinformatics, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on understanding stochastic 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 CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 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 these problems using computational techniques from statistics and computer science. Letter grading.

M225. Computational Methods in Genomics. (4) (Same as Computer Science M225 and Human Genetics M265.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in 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 methods include those from statistics and computer science. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Biomathematics M226, Computer Science M226, and Human Genetics M265.) Lecture, four hours; outside study, eight hours. Enforced requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, 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. Bioinformatics is a key toolkit in this endeavor. Biological data sets 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.

263A. 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 Sequencing (NGS) data analysis, ChiP-seq, BS-seq and RNA-seq, and others. Letter grading.

275A. Applied Bioinformatics Lab for Biologists: Intermediate. (2) Laboratory, six hours (five weeks). Requisite: 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 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 or letter 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.
Tumor microenvironment contributions to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading.

194. Research Group Seminars: Biological Chemistry. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current general field of research of faculty members or students. May be repeated for credit. P/NP grading.

199. Directed Research or Senior Project in Biological Chemistry. (9 to 20) Tutorial, two to eight hours; juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

201A-201B. Biological Chemistry, (5–6) Lecture, five hours. Preparation: organic chemistry. Open to nonmedical students with consent of instructor. Primarily for first-year medical students and runs throughout School of Medicine. By semester. General biochemistry with emphasis on mammalian systems. Structure, function, and metabolism of major cellular components. To receive credit, both courses must be taken together in same academic year. In Progress (201A) and S/U (201B) grading.

M202. Advanced Topics in Cryogenic Electron Microscopy. (3) Formerly numbered 202. (Same as Molecular Biology 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 cryoanography, single particle reconstruction, electron crystallography, and microcrystal electron diffraction. Letter grading.

204. Human Biological Chemistry and Nutrition Laboratory. (3) Laboratory, four hours. Open to nonmedical students with consent of instructor. Experiments illustrating techniques and procedures in medically related biochemistry and nutrition, analysis of experimental results. S/U or letter grading.


220A–220B–220C. Research Laboratory Rotations. (2 to 8 each) Laboratory, two to eight hours. Students arrange apprenticeships in laboratories of one or more departmental faculty members and engage in research project under close faculty direction. Allows students to acquire in-depth laboratory experience in specific research areas and facilitates informed decision on their part in selection of thesis/research advisor. S/U grading.

M229S. Seminar: Current Topics in Bioinformatics. (4)Same as Computer Science M229S and Human Genetics M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. Introduction to current topics 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 technology. Course includes those from statistics and computer science. May be repeated for credit with topic change. Letter grading.

M234. Genetic Control of Development. (4) (Same as Molecular, Cell, and Developmental Biology M234.) Lecture, four hours. Topics at forefront of molecular developmental biology, 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.

M237. Cellular and Molecular Basis of Disease. (4) (Same as Pathology M237.) Lecture, two hours; laboratory, two hours. Preparation: one course in molecular biology, cell biology, and biological chemistry. Discussion of key issues in disease mechanisms, with emphasis on experimentation leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. Letter grading.

248. Tumor Cell Biology. (2) Seminar, one hour per month. Limited to students selected for one of following National Institutes of Health (NIH) training programs: tumor cell biology, tumor immunology, and training in immuno-targeted therapy for cancer. Formal presentation of research to other class members and faculty. Questions are asked during and after each presentation. Faculty provide each speaker with feedback on effectiveness of presentation. S/U grading.

251A–251B–251C. Seminars: Transcriptional Regulation. (2–2–2) Seminar, two hours. Advanced courses on mechanics of gene transcription in both eukaryotes and prokaryotes intended for students actively working or highly interested in transcription. S/U grading.

M255. Mitochondria in Medicine, Biology, and Chemistry. (1) (Same as Chemistry CM255.) Seminar, two hours every other week. Open to undergraduate and graduate science students currently conducting research in areas related to mitochondria. Large number of physiological and pathophysiological processes involve mitochondrial function and dysfunction. Focus on understanding how mitochondria metabolism, form, and function impact health and disease. Physiology and cell biology of healthy and dysfunctional mitochondria critically assessed 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. S/U grading.

M259. Mechanisms of Gene Regulation. (4) (Same as Chemistry CM259.) Lecture, four hours. Requires: Chemistry 113B. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional poising and elongation control; Mediator of transcription; chromatin remodeling and modification; epigenetic regulation; cotranscriptional and transcription-coupled RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. S/U or letter grading.

265A–265B–265C. Seminars: Cell, Stem Cell, and Developmental Biology. (2–2–2) Seminar, two hours. Open to undergraduate students with consent of instructor. Advanced courses in cell, stem cell, and development biology intended for graduate students working or rotating in laboratories of new cell and development biology home area. S/U grading.

296. Research Seminar Series in Biological Chemistry. (1) Seminar, one hour. Limited to biological chemistry students. Research presentations from second- through fourth-year graduate students related to their research. Designed to be highly interactive, with time for questions from fellow graduate students, postdoctoral students, and faculty members during and after presentations. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel of the Department of Biological Chemistry and Genetics, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study and Research. (2 to 12) Tutorial, to be arranged. S/U or letter grading.
Undergraduate Minor

Biomedical Research Minor

Admission

Admission to the Biomedical Research minor is competitive, and application follows completion of Biomedical Research 5HA, 10H, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 30H, or an approved alternative course. Applications (see the minor website) must be submitted no later than the first term of the junior year. Students must be in good academic standing and demonstrate a genuine interest in research. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

The Minor

Required Lower-Division Courses (8 units): Biomedical Research 5HB (or an approved alternative course) and Molecular, Cell, and Developmental Biology 60.

Required Upper-Division Courses (24 units): (1) Sixteen units (four courses) of approved laboratory research through either course 198 or 199 (or an approved alternative course); (2) one history of science or philosophy of science course selected from History 179A, 179B, 180A, Neurobiology M169, Philosophy 124, 125, 137, or 155A (or an approved alternative course); and (3) Biomedical Research 193H and 194H, or the required journal club seminars (such as Chemistry and Biochemistry 193A) for students in the Integrated and Interdisciplinary Undergraduate Research Program, MARC, or UC LEADS.

Students are expected to file a senior research thesis after completion of their 16 research units and must participate in at least one conference in which they present their research. Up to 8 units of research may be applied toward departmental requirements for the major. The research project and thesis may be the same as those for departmental honors.

Policies

Transfer credit for any required course is subject to approval. Students with a grade of less than B (3.0) in any minor course or a cumulative grade-point average of less than 3.0 are subject to dismissal from the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

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

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A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

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Overview

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Ronald S. Brookmeyer, PhD
Catherine M. Crespi, Ph.D, in Residence
Robert M. Elashoff, PhD
Stefan Horvath, PhD, ScD
Gang Li, PhD
Honghu Liu, PhD
Christina M. Ramirez, PhD
Damlia Senturk, PhD
Janet S. Sinshheimer, PhD
Marc A. Suchard, PhD
Catherine A. Sugar, PhD, in Residence
Donatello Telesca, PhD
Robert E. Weiss, PhD
Weng Kee Wong, PhD
Hua Zhou, PhD

Professors Emeriti
Abdelmonem A. Affi, PhD
William G. Cumberland, PhD
Donatello Telesca, PhD

Assistant Professors
Grace H.J. Kim, PhD, in Residence
Jingyi Jessica Li, PhD

Assistant Professors
Hilary J. Aralis, PhD, in Residence
Andrew J. Hollbrook, Ph.D
Zhe Fei, Ph.D, in Residence

Adjunct Professors
David Elashoff, PhD
David W. Gjerston, PhD
Martin L. Lee, PhD

Adjunct Associate Professor
Jin Zhou, PhD

Overview
In recent years biostatistics has become one of the most stimulating areas of applied statistics. The field encompasses the methodology and theory of statistics as applied to problems in the life and health sciences. Biostatisticians are trained in the skilled application of statistical methods to the solution of problems encountered in public health and medicine. They collaborate with scientists in nearly every area related to health and have made major contributions to our understanding of AIDS, cancer, genetics, bioinformatics, and immunology, as well as other areas. Further, biostatisticians spend a considerable amount of time developing and evaluating the statistical methodology used in those projects. The Department of Biostatistics offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Biostatistics and, through the Fielding School of Public Health, 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

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
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) 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. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those occurring in biological sciences. Topics include distributions, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: course 100A or Public Health 200A. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

197. Individual Studies in Biostatistics. (2 to 4) Upper-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) Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP 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 and interpretation and communication of statistical findings is stressed. Focus on
270 / Biostatistics


200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: courses 200A, 200B, and previous coursework in linear algebra. Designed for students pursuing graduate degrees in biostatistics. Study of 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 estimated equations for analyzing longitudinal data; and write formal statistical report of data analysis for public health researcher. S/U or letter grading.

201A. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 200A. Further studies in multiple linear regression, including application of diagnostic and model selection criteria. Examination of the implications of model assumptions. 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 application of diagnostic and model selection criteria. Examination of the implications of model assumptions. S/U or letter grading.

202A–202B. Mathematical Statistics A, B, 4 (4–4) Lecture, three hours; discussion, one hour. Designed primarily for students pursuing graduate degrees in MS and PhD degrees in biostatistics. Introduction to main principles of probability, random variables, and continuous and discrete distributions, multivariate distributions, and distributions of functions of random variables. S/U or letter grading. Requisite: course 202A. Lecture, three hours; discussion, one hour. Preparation: courses 200A, 200B, 202A, 202B, or equivalent, or consent of instructor. Mathematical underpinnings of Bayesian approach to statistical inference; closed form computations; computation; hierarchical models; model selection; hypothesis testing; prior specification; comparative inference; nonparametric methods. S/U or letter grading.

203A. Introduction to Data Management and Statistical Computing. (4) Lecture, three hours; laboratory, two hours. Preparation: consent of instructor. Introduction to programming languages not assumed. Coverage of mechanics of converting data from whatever form it may arrive and preparing it for processing by statistical software. Letter grading.

203B. Introduction to Data Science. (4) Lecture, three hours; laboratory, two hours. Preparation: courses 200A, 200B, 203A, 203B, or equivalent, or consent of instructor. Introduction to contemporary data science, including data visualization and web presentation, reproducible research, collaborative research, cluster computing, and cloud computing. S/U or letter grading.


233. Statistical Issues in Global Health. (4) Lecture, three hours. Requisite: course 200C. Recommended for students interested in applications of statistical issues in addressing contemporary global health challenges. Topics include statistical methods for analyzing public health surveillance data, methods and models for measuring and mapping the health of populations, epidemic modeling, agent-based modeling, evaluating and addressing sampling issues in public health data, and design and analysis of large-scale population health interventions for trials and cancer screening programs. Applications to both infectious and noninfectious diseases. Case studies include HIV/AIDS, cancer, pandemic flu, and topical global health challenges such as recent outbreaks of emerging pathogens. S/U or letter grading.

234. Applied Bayesian Inference. (4) (Same as Biostatistics 234.) Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biomedical applications and concepts rather than mathematical theory. Topics include likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

235. Causal Inference. (4) (Same as Psychiatry 235.) Lecture, three hours; discussion, one hour. Requisites: courses 200C, 200B, or equivalent. Philosophical foundations, logical paradoxes, decision analysis, selection bias, confounding, ecological paradoxa, historical development, potential outcomes, Rubin causal model, propensity scores, competing policy interventions, and path analytic structur-equation models, experiments with noncompliance, principal stratification, decision making when causality is disrupted, role of ethics in decision making. S/U or letter grading.

236. Longitudinal Data. (4) (Same as Biostatistics 236.) Lecture, three hours; laboratory, one hour. Preparation: course 200B or another substantial regression course. Analysis of continuous responses with varying covariate normality assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include introductions to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.


238. Methodology of Clinical Trials. (4) (Same as Biostatistics 238.) Lecture, three hours; discussion, one hour. Requisite: course 200C. Introduction to design and analysis of clinical trials, including adaptive methods for early and late randomized trials. S/U or letter grading.

239. Mathematical and Statistical Phylogenetics. (4) (Same as Biostatistics 239 and Human Genetics 239.) Lecture, three hours; laboratory, one hour. Preparation: undergraduate course in statistics and probability. Theoretical models in molecular evolution focusing on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, 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 se-
que nce data. S/U or letter grading.

241. Spatial Modeling and Data Analysis for Health Sciences. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 202A, 202B. Introduction to exploring, modeling, and analyzing spatially referenced datasets, with em-
phasis on environmental/natural sciences and public health. Statistical theory and foundations for carrying out principled and statistically rigorous inference on spatially referenced datasets and computational methods and algorithms for executing statistical mod-
eling tasks. Examples include applications demonstrated using open-source statistical software.

environment R and datasets from diverse fields, such as public health, environmental health, natural sci-
ences, and other.

244. Master’s Seminar and Research Resources for Graduating Biostatistics MS Students. (4) Sem-
inar, three hours. Introduction to resources for finding statistical literature. Discussion of principles of making statistical presentations and how to write statistical re-
ports, including writing abstracts and choice of key words. Discussion of journal article preparation and submission format and refereeing process to help stu-
dents make progress on their master’s reports. Letter grading.

245. Advanced Seminar: Biostatistics. (2) Lettersubmission format and refereeing process to help stu-
dents make progress on their master’s reports. Letter grading.

247. Multivariate Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 202A, 202B. Introduction to exploring, modeling, and analyzing spatially referenced datasets, with em-
phasis on environmental/natural sciences and public health. Statistical theory and foundations for carrying out principled and statistically rigorous inference on spatially referenced datasets and computational methods and algorithms for executing statistical mod-
eling tasks. Examples include applications demonstrated using open-source statistical software.

environment R and datasets from diverse fields, such as public health, environmental health, natural sci-
nces, and other.

248. Advanced Seminar: Biostatistics. (2) Seminar, two hours. Requisites: courses 200C, 202B. Current research in biostatistics. May be repeated for credit.

S/U grading.

249. Doctoral Students Seminar. (2) Seminar, two hours. Requisites: courses 200C, 202B. Limited to Biostatistics majors. Biostatistics doctoral seminar, with presentations given by students on current re-
search topics in biostatistics and feedback provided by instructor and peers. S/U grading.

250A. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Recommended prepara-
tion: statistics, linear algebra. Designed for students pursuing graduate degrees in biostatistics. Theoretical foundation for linear models with applica-
tions to different types of problems in biomedical field. Emphasis on mathematical training and under-
standing of theory and applications of linear models. Letter grading.

250B. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Recommended prepara-
tion: statistics, linear algebra. Designed for students pursuing graduate degrees in biostatistics. Theoretical foundation for linear models with applica-
tions to different types of problems in biomedical field. Emphasis on mathematical training and under-
standing of theory and applications of linear models. Letter grading.

250C. Multivariate Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 202A, 202B. Introduction to exploring, modeling, and analyzing spatially referenced datasets, with em-
phasis on environmental/natural sciences and public health. Statistical theory and foundations for carrying out principled and statistically rigorous inference on spatially referenced datasets and computational methods and algorithms for executing statistical mod-
eling tasks. Examples include applications demonstrated using open-source statistical software.

environment R and datasets from diverse fields, such as public health, environmental health, natural sci-
ences, and other.

252A. Advanced Probability and Statistics. (4) Lecture, three hours; discussion, one hour. Recommended: courses 220A or 220B, Mathematics 115A. Recommended requisite: course 225A. Overview of common statistical techniques presented in a biostatistical context. Topics include theory and applications of regression, analysis of variance, multiple comparison, and nonparametric methods. Letter grading.

252B. Advanced Probability and Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 225A or consent of instructor, Mathematics 131A. Survey of advanced topics in probability and mathematical statistics, with special emphasis on ap-
lications to biostatistics. Topics include laws of large numbers, central limit theorem, basic concepts from stochastic processes, and applications to large sample theory in biostatistics. S/U or letter grading.

257. Computational Methods for Biostatistical Research. (4) Formerly numbered 257.) (Same as Biostatistics 202A.) Lecture, three hours; discussion, one hour. Requisites: course 250A or Statistics 100C, Mathematics 115A. Preparation for quantitative re-
search in statistics and data sciences. Numerical anal-
ysis of algorithms, computer architectures, handling big data. Numerical analysis topics include computer arithmetic, solving linear equations, Cholesky factor-
ization, QR factorization, regression computations, ei-
genvalue problems, optimization, and design of computer experiments. Computing techniques include basics of R programming, reproducible research using R and RStudio, collaborative research, parallel com-
puting, and cloud computing. No prior knowledge of R assumed. S/U or letter grading.


272. Theoretical Genetic Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200C and Mathematics 115A. Covers theoretical underpinnings and practical appli-
cations of modern machine-learning and other data-
intensive approaches to support work in biologists and machine learning.

273. Machine Learning. (4) Lecture, three hours. Requisites: course 200C and Mathematics 115A. Covers theoretical underpinnings and practical appli-
cations of modern machine-learning and other data-
intensive approaches to support work in biologists and machine learning.

275. Advanced Survival Analysis. (4) Lecture, three hours. Requisites: courses 200A, 200B. Advanced techniques for analyzing time-to-event data arising in various fields, such as medicine, reliability theory, demography, so-
ciology, economics, and astronomy. Letter grading.

276. Inferential Techniques that Use Simulation. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 200A, 200B. Recommended: course 213. Theory and application of recently developed tech-
niques to statistical inference that use computer sim-
ulation. Topics include randomization, data augmentation, data generation, and resampling techniques.

277. Robustness and Modern Nonparametrics. (4) Lecture, three hours. Requisites: Statistics 200A. Topics include M-estimation, influence curves, break-
down points, bootstrap, jackknife, smoothing, nonpara-
metric regression, and nonparametric density estima-
tion. S/U or letter grading.

278. Optimal Design Theory and Application. (4) Lecture, three hours. Preparation: basic programming skills. Requisites: Statistics 200B. Design of bio-
medical experiments. Theory and applications of optim-
ization techniques and model-based methods for bio-
medical experiments. Letter grading.

413. Introduction to Pharmaceutical Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100A, 100B. Exploration of various types of statistical techniques used in pharmaceutical and related industries. Topics include bioassay and other assay techniques (e.g., ELISAs and FACs analysis), quality control techniques, and pharmacokinetic and pharmacodynamic modeling. S/U or letter grading.

414. Principles of Sampling. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. Epidemiology 100. Statistical aspects of design and implementation of sample survey. Techniques for analysis of data, including estimates and standard errors. Avoiding improper use of survey data. Letter grading.

456. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master's degree minimum total course requirement. May be repeated for credit. S/U grading.

486. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

595. Effect Integration of Biostatistical Concepts in Public Health Research. (4) Tutorial, to be arranged. Enforced requisites: courses 110A, 110B, 400, 402A. Students meet weekly with their adviser and also work independently on their proposed projects. Course fosters 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.

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 be repeated for credit. S/U grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

BRAIN AND BEHAVIORAL HEALTH

Interdisciplinary Minor
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Andrew J. Fuligni, PhD, Chair

Faculty Committee
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Christopher J. Evans, PhD (Psychiatry and Biobehavioral Sciences, Psychology)

Andrew J. Fuligni, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Adriana Galván, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Tara S. Peris, PhD (Psychiatry and Biobehavioral Sciences)

Overview
Issues of brain and behavioral health have become central to the understanding of human development, well-being, and productivity. Sometimes called translational science, the focus on evidence-based prevention and treatment programs at multiple levels—individual, family, school, community—has become a primary focus of the behavioral health fields. Key features of the approach include an understanding of the basic science of the brain and behavioral issues at hand, their interaction with contextual factors, the development of programs and policies derived directly from that science, and the rigorous evaluation of those programs and policies.

Undergraduate Minor

Brain and Behavioral Health Minor
The minor offers students the opportunity to learn about how to apply scientific advances to the promotion of brain and behavioral health across the lifespan. The Brain and Behavioral Health minor is intended to supplement the education of undergraduate students enrolled in the Cognitive Science, Human Biology and Society, Neuroscience, Psychobiology, and Psychology majors. As a minor, the program is able to take advantage of the core knowledge gained by students from their majors and focus on how to use that knowledge to develop programs and policies focusing on brain and behavioral health. The program offers students depth in a topic (e.g., autism, dementia) that is required when trying to solve a pressing problem.

Admission
To enter the minor students must have an overall grade-point average of 2.7 or better, have completed Psychiatry 79, and submit an application demonstrating interest in the application of science to improving brain and behavioral health by the end of the fall quarter of the student’s third year.

The Minor
Required Lower-Division Courses (5 units): Psychiatry 79.
Required Upper-Division Courses (24 units): (1) Psychiatry 174 or 176; (2) three upper-division electives selected from Neuroscience CM123, C177, M187, 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.

CHEMICAL AND BIOMOLECULAR ENGINEERING

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Philippe Sautet, PhD, Vice Chair

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Panagiotis D. Christofides, PhD (William D. Van Vorst Professor of Chemical Engineering Education)
Yoram Cohen, PhD
James F. Davis, PhD
Vijay K. Dhir, PhD
Vasilios I. Manousiouthakis, PhD
Harold G. Monbouquette, PhD
Stanley J. Osher, PhD
Philippe Sautet, PhD
Yi Tang, PhD (Ralph M. Parsons Foundation Professor of Chemical Engineering)

Professors Emeriti
Robert F. Hicks, PhD
Eldon L. Knuth, PhD
James C. Liao, PhD
Yunfeng Lu, PhD
Selim M. Senkan, PhD
Vincent L. Vilker, PhD
A.R. Frank Wazzan, PhD, Dean Emeritus

Associate Professors
Irene A. Chen, PhD
Yvonne Y. Chen, PhD

Assistant Professors
Nasim Annabi, PhD
Carissa N. Eisler, PhD
Overview
The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs of teaching and research that focus on the areas of biomolecular and environmental engineering, systems engineering, and advanced material processing and span the general themes of energy/environment and nanotechnology. They are founded on the fundamentals taught in prior required courses; they then work in groups to produce a paper design of a realistic chemical process using appropriate software tools. Graduates should be able to 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, 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 biomolecular, biomedical engineering, environmental engineering, and semiconductor manufacturing options provide students with an opportunity for exposure to a subfield of chemical and biomedical 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 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, 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.

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, Chemistry and Biochemistry 153A; 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.

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 one biomedical elective course (4 units) from Bioengineering C105, C183, Chemical Engineering C112, Chemistry and Biochemistry C105, 153A, or C159 (another chemical engineering elective may be substituted with approval of the faculty adviser). For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.
courses (Chemical Engineering 108A, 108B); and two elective courses (5 units) from Chemical Engineering 113, 119, 121, 122B, 132, 135, 140 (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, 103, 104A, 104C, 104CL, 106, 107, 109, 1116; 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.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Graduate Major

Chemical Engineering MS, PhD Requirements

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

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.

For '04 chemical and biomolecular engineering laboratory I. (4). Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 100. Enforced corequisite: course 101B. Recommended: course 102B. Enforced corequisite: course 102B. Enforced corequisite: course 102B.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week; per-unit for lower-division research for lowering 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 requisite: course 101A. Recommended: course 100. Introduce to analysis and design of chemical processes. Material and energy balances. Introduction to chemical engineering practice. Fundamentals of mass species transport in systems of interest to chemical engineering practice. Thermodynamics of flow systems. Application of first and second laws of thermodynamics to chemical and statistical thermodynamics in chemical and biological sciences. Phase equilibria in single and multiple variable linear regression, and brief introduction to factorial design of experiments. Oral and poster presentations. Technical writing of sections of technical reports and theses. 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. Recommended: course 101B. Introduction to analysis of heat transfer in chemical, biological, materials, and molecular processes. Intermolecular interactions, and facilitated diffusion in systems of interest to chemical engineering practice. Fundamentals of heat, mass, and momentum transport to members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

101C. Enzyme Kinetics. (4)

Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Recommended: course 100. Enforced corequisite: course 101C. Enforced corequisite: course 101C. Enforced corequisite: course 101C.

102A. Thermodynamics I. (4)

Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102A. 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. Application of first and second laws of thermodynamics to chemical and 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 requisite: courses 100, 101B. Application of principles of heat, mass, and momentum transport to the 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 101B. Recommended: course 102B. Enforced corequisite: course 102B. Enforced corequisite: course 102B.

104B. Chemical and Biomolecular Engineering Laboratory II. (6) Lecture, four hours; laboratory, eight hours; outside study, four hours; other, two hours. Enforced requisite: courses 101C, 103, 104A. Course consists of four experiments in chemical engineering practice. Letter grading.

104C. Semiconductor Processing. (3)

Lecture, four hours; discussion, one hour; outside study, five hours. Enforced requisite: course 103C. Enforced corequisite: course 104CL. Enforced corequisite: course 104CL. 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, metalization, and statistical design of experiments and error analysis. 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 to 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, metalization, and statistical design of experiments and error analysis. Letter grading.


106. Chemical Reaction Engineering. (4)

Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 100, 101C, 102B. Fundamentals of chemical kinetics and catalysis. Introduction to analysis and design of homogeneous and heterogeneous chemical reactors. Letter grading.

107. Process Dynamics and Control. (4)

Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 101G, 103 (or
C128. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced control. Topics include Lyapunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability, interconnected systems, and small gain theorems, (3) design of nonlinear and robust control 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 computerized systems. Concurrently scheduled with course C235. Letter grading.

C135. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 101C. Technology of particle/gas systems with applications to gas cleaning, commercial production of fine particles, and catalysis. Particle transport and deposition, optical properties, experimental methods, dynamics and control of particle formation processes. Concurrently scheduled with course C240. Letter grading.

CM145. Molecular Biotechnology for Engineers. (4) Same as Bioengineering CM145. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 45. Selected topics in molecular biology that form foundation of biotechnology and bioindustrial industry today. Use of combinatorial 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, and genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing Engineering. (4) Same as Mechanical Engineering M153. Lecture, three hours; laboratory, four hours; outside study, five
200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 102B. Phenomenological and statistical thermodynamics; and physical systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 200 or Chemistry C223A or Physics 215A. Thermodynamics of chemical and physical systems. Polymers in biomedical applications and in polymer process engineering. Diffusion in polymeric systems. Mechanical properties. Rheology of macromolecules, and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C116. Letter grading.

217. Electrochemical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course C118. Letter grading.


220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 101C. Advanced treatment of mass transfer, with applications to industrial separation processes, gas cleaning, pulmonary bioengineering, controlled release systems, and reactor design; molecular and constitutive theories of diffusion, interfacial transport, membrane transport, convective mass transfer, concentration boundary layers, turbulent transport. Letter grading.

C221. Membrane Science and Technology. (4) Lecture, four hours; 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, porous membranes and their separation characteristics. Use of models of selective membranes and models of membrane transport (flux and selectivity). Examples provided from various areas, including bacteriophage display, virus-based combinatorial chemistry, and medical devices. Concurrently scheduled with course C125. Letter grading.


228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 319A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure and function, and biological networks. Tools of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM127. S/U or letter grading.

Graduate Courses
duction, 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 C128. Letter grading.


231. Molecular Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 106 or 110. Analysis and design of molecular-beam systems. Molecular-beam sampling of reactive mixtures in combustion chambers or gas jets. Molecular-beam studies of gas-surface interactions, including energy accommodations and heterogeneous reactions. Applications to air pollution control and to catalysis. Letter grading.


250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, seven hours. Requisite: course 108B. Application of optimization methods in chemical process design; computer aids in process engineering; process modeling; systemic flow sheeting; integrated process design and operation of large-scale chemical processing systems. 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 state-of-art research areas in chemical engineering. Letter grading.

270R. Advanced Research in Semiconductor Manufacturing. (8) Laboratory, nine hours; outside study, nine hours. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Emphasis is on up-to-date semiconductor materials and devices. Letter grading.


283A. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M280A, M282A. Designed for graduate students. Introduction to advanced dynamical analysis and control methods for nonlinear infinite dimensional systems. Topics include (1) linear operator and stability theory (basic results on Banach and Hilbert spaces, semigroup theory, convergence theory in functional spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin method, proper orthogonal decomposition), (3) nonlinear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.


290. Special Topics. (2 to 4) Seminar, four hours. Requisites for each offering announced in advance by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering analysis, and other high-throughput techniques. Letter grading.

M297. Seminar: Systems, Dynamics, and Control. (2) Same as Electrical and Computer Engineering M297A and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

298A-298Z. Research Seminars. (2 to 4 each) Seminar, to be arranged. Requisites for each offering announced in advance by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering analysis, and other high-throughput techniques. Letter grading.

M299A. Seminar: Systems, Dynamics, and Control. (2) Same as Electrical and Computer Engineering M299A and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

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CM201. Optimal Control. (4) (Same as Electrical and Computer Engineering M240C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisite: Electrical and Computer Engineering 240B or Mechanical and Aerospace Engineering 270B. Variational methods, Pontryagin maximum principle, Hamilton/ Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.


283C. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M280A, M282A. Designed for graduate students. Introduction to advanced dynamical analysis and control methods for nonlinear infinite dimensional systems. Topics include (1) linear operator and stability theory (basic results on Banach and Hilbert spaces, semigroup theory, convergence theory in functional spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin method, proper orthogonal decomposition), (3) nonlinear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.


290. Special Topics. (2 to 4) Seminar, four hours. Requisites for each offering announced in advance by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering analysis, and other high-throughput techniques. Letter grading.

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M299A. Seminar: Systems, Dynamics, and Control. (2) Same as Electrical and Computer Engineering M299A and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.
Faculty Roster

Professors
Anastassia N. Alexandrova, PhD
Anne M. Andrews, PhD, in Residence
David B. Bensimon, PhD
Guillaume F. Chanfreau, PhD
Catherine F. Clarke, PhD
Steven G. Clarke, PhD
Robert T. Clubb, PhD
Albert J. Courey, PhD
Timothy J. Deming, PhD
Paula L. Diaconescu, PhD
Abigail G. Doyle, PhD
Xiangfeng Duan, PhD
David S. Eisenberg, DPhil (Paul D. Boyer Professor of Molecular Biology and Biochemistry)
Jull F. Feigon, PhD (Christopher S. Foote Term Professor)
Miguel A. Garcia-Garibay, PhD
Neil K. Garg, PhD (Kenneth N. Trueblood Endowed Professor of Chemistry and Biochemistry)
William M. Gelbart, PhD
James K. Gimzewski, PhD
Patrick G. Harran, PhD (D.J. and J.M. Cram Professor of Organic Chemistry)
Michael E. Jung, PhD
Richard B. Kaner, PhD (Dr. Myung Ki Hong Endowed Professor of Materials Innovation)
Carla M. Koehler, PhD
Ohyun Kwon, PhD
Alexander J. Levine, PhD
Joseph A. Loo, PhD
Thomas G. Mason, PhD
Heather D. Maynard, PhD (Dr. Myung Ki Hong Endowed Professor of Polymer Science)
Craig A. Merlic, PhD
Daniel Neuhauser, PhD
Yves F. Rubin, PhD
Philippe Sautet, PhD
Benjamin J. Schwartz, PhD
Yi Tang, PhD (Ralph M. Parsons Foundation Professor of Chemical Engineering)
Sarah H. Tolbert, PhD
Jorge Z. Torres, PhD
Paul S. Weiss, PhD (Presidential Professor of Chemistry)
Shimon Weiss, DSc (Dean M. Willard Professor of Chemistry)
Gerard C.L. Wong, PhD
Todd O. Yeates, PhD

Professors Emeriti
Frank A.L. Anet, PhD
Daniel E. Atkinson, PhD
Deiroy A. Baugh, PhD
Kyle D. Bayes, PhD
James U. Bowie, PhD
Robijn F. Bruinsma, PhD
Richard E. Dickerson, PhD
Mostafa A. El-Sayed, PhD
Peter M. Felker, PhD
Robin L. Garrell, PhD
James W. Gober, PhD
Jay D. Gralla, PhD
E. Russell Hardwick, PhD
Kendall N. Houk, PhD (Saul Winstein Professor Emeritus of Organic Chemistry)
Wayne L. Hubbell, PhD (Jules Stein Professor Emeritus of Ophthalmology)
Charles M. Knobler, PhD
Christopher J. Lee, PhD
Raphael D. Levine, PhD
Harold G. Martinson, PhD
Emil Reisler, PhD
J. Fraser Stoddart, PhD (Nobel laureate)
Charles E. Strouse, PhD
Joan S. Valentine, PhD
Richard L. Weiss, PhD (Presidential Professor of Chemistry)
Charles A. West, PhD
Jeffrey I. Zink, PhD

Associate Professors
Louis S. Bouchard, PhD
Sriram Kosuri, PhD
Prineha Narang, PhD
Hosea M. Nelson, PhD
Margot E. Quinlan, PhD
Jose A. Rodriguez, PhD
Ellen M. Sletten, PhD (John McTague Career Development Professor)
Alexander M. Spokoyny, PhD
Jorge Z. Torres, PhD
Roy Wollman, PhD

Assistant Professors
Kerianne M. Backus, PhD (Alexander and Renee Kolin Endowed Professor of Molecular Biology and Biophysics)
Justin R. Caram, PhD
Chong Liu, PhD (Jeffrey and Helo Zink Endowed Term Professor of Professional Development in Chemistry)

Senior Lecturer SOE
Arlene A. Russell, PhD

Senior Lecturer
Laurence Lavelle, PhD

Lecturers
Anne Hong-Hermesdorf, PhD
Stacie S. Nakamoto, PhD
Eric R. Scerri, PhD

Adjunct Professor
Sabeeha Merchant, PhD

Adjunct Assistant Professors
Kristopher K. Barr, PhD
Jennifer R. Casey, PhD
Max Kopelevich, PhD
Daniel J. Nasrallah, PhD
Hung V. Pham, PhD
Huiling Shao, PhD

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 subdisciplines that deal primarily with the chemistry of inorganic substances (inorganic chemistry), the chemistry of carbon com-
pounds (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., 19A, 19B) 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 literature
- Communication of chemical knowledge and experimental results through written reports and oral presentations

Entry to the Major
Admission
Students entering UCLA directly from high school who declare the Chemistry major at the time of application are automatically admitted to the major.

UCLA students who wish to enter the major must have a minimum grade of C– in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students
Transfer applicants to the Chemistry major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus-based physics with laboratory or one year of organic chemistry for majors. Chemistry majors should have completed the equivalent of Mathematics 32B.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Chemistry Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 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 first-hand experience with state-of-the-art physical chemistry research.

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

Computing Specialization
 Majors may select a specialization in Computing by (1) 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.
Policies

Honors Program

Admission

The honors program provides exceptional majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or high-est honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization

Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

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 organelle function 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

Entry to the Major

Admission

Students entering UCLA directly from high school who declare the Biochemistry major at the time of application are automatically admitted to that major.

UCLA students who wish to enter the major must have a minimum grade of C- in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students

Transfer applicants to the Biochemistry major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of physics, and one year of organic chemistry for majors. Biochemistry majors must also complete courses equivalent to Life Sciences 7A and 7B.

Entering transfer students who have successfully completed a year course in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Chemistry and Biochemistry 14A (or 14AE) and 14B (or 14BE), or 20A (or 20AH) and 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C; Life Sciences 7A, 7B, 7C, and 23L; Mathematics 31A, Math 31B, 32A (33A strongly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH); and 4BL, or 5A, 5B, and 5C.

The Major

Required: Chemistry and Biochemistry 110A, 153A, 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).

Honors Program

The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A.

Policies

The Major

Refer to the Undergraduate Office website for a list of approved electives.

Honors Program

Admission

The honors program provides exceptional majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major, and obtain a cumulative 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.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.
Computing Specialization
Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

General Chemistry BS
The General Chemistry major is for students who wish to acquire considerable chemical background in preparation for careers in secondary school chemistry teaching. The major may be appropriate for some students who plan to enter other chemistry-related careers that involve teaching chemistry to nonchemists. This major cannot be taken as part of a double major or with the Science Education minor.

Learning Outcomes
The General Chemistry major has the following learning outcomes:

- Demonstrated mastery of fundamental chemical knowledge in analytical, inorganic, organic, physical chemistry, and biochemistry through in-depth problem solving, critical thinking, and analytical reasoning
- Effective communication of chemical knowledge through written materials, oral presentations, and teaching in a variety of settings
- Use of information resources for exploration and investigation of chemistry principles and models
- Understanding of the role of chemistry in addressing contemporary societal and global issues
- Ability to perform and teach basic laboratory procedures and techniques involving the synthesis of molecules
- Ability to perform and teach the measurement of chemical properties, structures, and phenomena
- Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
- Knowledge of how to use information resources to search and access safety databases

Entry to the Major
Transfer Students
Transfer applicants to the General Chemistry major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies
Students must declare the major before reaching 135 units.

Requirements
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Life Sciences 7A; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), and 4BL (or 5A, 5B, and 5C).

The Major
Required: Chemistry and Biochemistry 110A, 153A, 153L, 171, and 192A or 192B; three additional upper-division courses in the department (at least one must be a laboratory course); one course from Atmospheric and Oceanic Sciences 101, 102, 103, 104, Earth, Planetary, and Space Sciences 101, C113; three courses from Education M102, 105B, 105A, 107A, 107B, M108, C111, 126, 127, M131A, 132; one course from Environmental Health Sciences C152D, C164, Science Education 100XP.

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A.

Policies
Preparation for the Major
Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major
A 2.0 grade-point average is required in all upper-division courses in the department.

Honors Program
Admission
The honors program provides exceptional majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements
To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the department honors committee, students are awarded no honors, honors, or highest honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization
Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

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 dif-
fraction, optical absorption and fluorescence spectroscopies, electrical measurements, and electron and scanning probe microscopies
• Understanding of basic operational principles for a broad range of practical devices (e.g., LEDs, photovoltaics, electrochromics, etc.) from a fundamental materials perspective
• Safely and effectively work in a materials laboratory setting
• Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
• Knowledge of how to use information resources to search and access safety databases
• Use of computers, including data acquisition and software tools for calculating and understanding materials properties
• Demonstrated broad mastery of materials chemistry including critical thinking, problem solving, working effectively in diverse groups
• Communication of knowledge through written reports and oral presentations

Entry to the Major
Admission
Students entering UCLA directly from a 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. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students
Transfer applicants to the Chemistry/Materials Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Chemistry/Materials Science majors in the organic materials concentration must complete a full year of organic chemistry with laboratory in addition to the other courses listed above.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL, Mathematics 31A, 31B, 32A, 32B, 32B, Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 171, C172 or C180 or C181, 185, 4 units from 110B, C113B, C172, C174, C175, C176, C180, C181, Materials Science and Engineering 104, 110, 110L, 120, 121 or 150 or 160, 131, 8 units from C111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

Organic Materials Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL, Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 136, 171, 185, 4 units from 110B, C113B, C143A, 144, C172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150, 4 units from C111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A.

Policies
The following courses may be applied only once toward the major: Chemistry and Biochemistry 110A, 113A, 136, 171, 185, 4 units from 110B, C113B, C143A, 144, C172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150, 4 units from C111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

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

Chemistry MS, CPhil, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 Applied Chemical Sciences
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,
Applied Chemical Sciences

Graduate Courses


202. Data Management in Science. (3) Lecture, three hours. Offers training for different aspects of data management in science. Topics include common practices of searching and managing literature data, calculating and reporting statistical tests, and intro- duction to key computational approaches in context of scientific research. With real-life examples and inter- active in-class discussions, students are equipped with necessary data-management skills in both aca- demic and professional settings. Letter grading.

203. Synthetic Methods. (5) Laboratory, eight hours; discussion, two hours. Synthesis of organic, inorganic and organometallic compounds, including air-sensit- ive materials; advanced chromatographic and ion ex- chang methods; spectroscopic characterization and applica- tions. Laboratory projects emphasize ad- vanced characterization tools, team work, and project manage- ment in graduate-level research.

204. Workflow Management. (3) Lecture, three hours. Offers training for workflow management in science. Topics include common practices needed for science communication, developing various forms of written documentation, and navigating major organizational and team work challenges. Letter grading.

205A-205B. Careers in Chemistry. (2–2) Seminar, two hours. Various non-academic speakers give pre- sentations on career paths in areas such as industry, government, research and development, education, law, and health care, and explain skills that are helpful for respective career. S/U grading.

206. Medicinal Chemistry and Drug Discovery. (4) Lecture, four hours. Overview of drug discovery pro- cess with focus on transition metal catalysis in syn- thesis of medicines. Discussion of process by which drugs are discovered, from lead optimization to pro- cess development. Introduction of transition metal ca- talysis, its application in drug discovery, and its critical role in modern drug de- velopment. Covers fundamental concepts of transition metal catalysis and how catalysis has played transforma- tive role in synthesis of modern medicines. Letter grading.

207. Chemistry of 3D Printing and Additive Manu- facturing. (4) Lecture, four hours. Examination of various styles of 3D printing in plastic and metal space. Examination of material and design constraints of each technology. Exploration of end-use applications for each technology. Culminates in design project in which students select product for re-design to take advantage of additive manufacturing. Students use basic computer-aided design skills to modify existing product, select print technology and material to gen- erate that object, and then produce report looking at cost-benefit analysis of using 3D printing in chosen application. Letter grading.

Chemistry and Biochemistry

Lower-Division Courses

3. Material World. (4) Lecture, three hours; laboratory, two hours. Focus on most important advances made by humans in developing new molecules and mate- rials, and how these discoveries affect our everyday life. These include development of paints, polymers, metals, fuels, drugs, energetic materials, radioactive substances, poisons, and many more. Connections are made between industry and current events, and students are encouraged to ask critical questions about these materials and processes. Letter grading.

4A. Chemistry and Your Health. (2) Lecture, two hours. Recent health trends and how they are portray- ed in popular culture and media. Examination of sci- entific explanations behind current health crazes and determination if there is evidence to support them. Discus- sion of chemical principles, such as basic arrow pushing mechanisms, radical oxidations, etc. Investi- gation of variety of topics including vitamins, health and beauty supplements, sugar alternatives, detoxi- fiers, and traditional medicines. Relevant for stu- dents who have taken organic chemistry classes and those who are interested in learning basic organic chemistry concepts. Course is at college-level chemistry is required. P/NP or letter grading.

4B. What’s Cooking Chemistry in the Kitchen. (4) Lecture, three hours. What is difference between baking soda and baking powder? Why do some reci- pes call for buttermilk? Why do some recipes ask you to reverse these questions and more through dive into chem- istry happening every day in your kitchen. Study of macro- molecules that make up food (carbohydrates, proteins, fats, lipids), and their chemical properties (pKa values, phobicity, 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, small groups. Focus is on improving food preparations is also learned. Opportunity- ties to participate in scientific process through weekly at home experiments in kitchen, and creative research project. P/NP grading.

7. Nanoscience and Nanotechnology Laboratory. (2) Seminar, discussion, and laboratory, 32 hours. Lim- ited to high school students. Key concepts of nanosci- ence and nanotechnology, including various app- roaches to fabricating bottom-up and top- down) Fabrication of nanostructures and devices, col- lection of scientific data using those devices, analysis of data, and presentations of student results. Offered in summer only. P/NP grading.

8. Applications of Nanoscience. (2 to 4) Seminar, discussion, laboratory, and field trip, 30 to 60 hours. Limited to high school students. Introduction of ad- vanced concepts of nanoscience and nanotechnology, with emphasis on applications of nanoscience and nanotechnology in other research fields and in- dustries. Laboratories introduce students to research techniques that are critical for understanding of molecular and nanoscale phenomena. These include development of paints, polymers, and other advanced materials, as well as applications in materials science, medicine, and energy. 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 mathemat- ics. Emphasis: high level standard of Chemistry Diagnostic Test. Enforced corequisite: Life Sciences 30A or Math- ematics 3A or 31A or score of 4B or better on Math- ematics Diagnostic Test. Not open to students with credit for course 20A, 20BH, or 20L. Not open to students with credit for course 20L. Not open to students with credit for course 14B, 20B, or 20BH. Limited to high school students. Introduction to stoichiometry, chemical kinetics, including catalysis, and molecule-to-molecule interactions. Emphasis on developing problem-solving skills and collaborative interaction and learning. P/NP or letter grading.

14B. General Chemistry for Life Scientists II —En- hanced. (4) Lecture, three hours; discussion, two hours. Enforced prerequisite: course one 14A, 14AE, 20A, or 20BH with grade of C– or better. Enforced corequis- ite: Life Sciences 30B or Mathematics 3B or 31B with grade of C– or better. Not open to students with credit for course 14BE, 20B, or 20BH. Limited to high school students. Introduction to stoichiometry, chemical kinetics, including catalysis, and molecule-to-molecule interactions. Emphasis on developing problem-solving skills and collaborative interaction and learning. P/NP or letter grading.

14BL General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. En- forced prerequisite: course one 14A or 20A or 20BH with grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Preparation: high school chemistry or equivalent background and three and one half years of high school mathemat- ics. Enforced prerequisite: completion of course 14A with grade of C– or better. Not open to students with credit for course 30A. Continuing studies in structure of organic molecules, with em- phasis on applications of advanced spectroscopy, stereochemistry, nanoscience, and applications to problems in chemistry, conjugation, and aromaticity; spectroscopy (NMR, IR, and mass spectrometry); introduction to e- effects of structure on physical and chemical properties; survey of biomolecular structure. P/NP or letter grading.

14CL General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. En- forced prerequisite: courses 14B and 14BL or 20B and 20BH with grade of C– or better. Enforced corequisite: course 14C. Synthesis and analysis of compounds; purification by extraction, chromatography, recrystal- lization, and sublimation; characterization by mass spectrometry, 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 prerequisite: course 14C with grade of C– or better. Or- ganic reactions, nucleophilic and electrophilic substitu- tions and additions; electrophilic aromatic substitu- tions, carbonyl reactions, catalysis, molecular basis of drug action, and organic chemistry of pharmaceuti- cals. P/NP or letter grading.

17. Chemical Principles. (4) Lecture, three hours; discussion, one hour. Introduction to chemical princi- ples: numbers, measurements, chemical calculations, gas laws, solutions, acids, bases, and salts, molecular 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 proper- ties of inorganic, organic, and biological acids, bases, and salts. Biogical and environmental relev- ant examples are used to illustrate central role that chemistry plays in our world. Emphasis on developing problem-solving skills and collaborative interaction and learning. P/NP or letter grading.

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 mathematics. Recommended preparation: high school physics. Required: completion of Chemistry Diagnostic Test. Enforced corequisites: Mathematics 31A, with grades of C– or better. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy. P/NP or letter grading.

20AH. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and three and one half years of high school mathematics. Enforced corequisites: Mathematics 31A, with grades of C– or better. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy. P/NP or letter grading.

20B. Chemical ENergetics and Change. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 20A and Mathematics 31A, with grades of C– or better. Enforced corequisite: Mathematics 31B. Second term of general chemistry. Inter- molecular forces and organization, phase behavior, chemical thermodynamics, equilibrium, reaction rates and laws. P/NP or letter grading.

20BH. Chemical ENergetics and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 20A and Mathematics 31A, with grades of C– or better. Enforced corequisite: Mathematics 31B. Honors course parallel to course 20B. Letter grading.

20L. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, three hours. Enforced requisites: course 14A or 20A with grade of C– or better. Enforced corequisite: course 14B or 20B. Use of balance, volumetric techniques, volumetric and potentiometric analysis; Beer’s law, applications for environmental analysis and materials science. P/NP or letter grading.


30B. Organic Chemistry II Laboratory. (4) Lecture, one hour; laboratory, six hours. Enforced requisites: courses 20B (or 20BH), 20L, and 30A (or 30AH), with grades of C– or better. Qualitative and quantitative analysis of organic reactions and compounds, kinetics, separations, and spectroscopy. P/NP or letter grading.


30CL. Organic Chemistry Laboratory II. (4) Lecture, two hours; laboratory, six hours. Enforced requisites: courses 30B and 30BL, with grades of C– or better. Enforced corequisite: course 30C. Modern techniques in synthetic organic and analytical organic chemistry. Semi-preparative scale, multistep synthesis of organic and organometallic molecules, including asymmetric catalysts. One- and two-dimensional multinuclear NMR techniques. Written reports and proposals. P/NP or letter grading.

50. Computational Tools for Materials Modeling and Discovery. (4) Lecture, three hours. Enforced requisites: course 14A or 20A or 20AH, with grade of C– or better. Modern tools to predict material properties, properties of graphene, and conducting purifications) and spectroscopy (IR, NMR, mass spectrometry). Synthesis of known organic molecules on microscale level with focus on societal applications. P/NP or letter grading.

101. Catalysis in Modern Drug Discovery. (4) Lecture, three hours. Enforced requisites: course 14D or 30B with 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 drug development. Introduction to the role of metals in catalysis, area of critical importance in modern drug development. Study of fundamental concepts of transition metal catalysis and how catalysis has played transformational role in the development of medicines. Particular attention throughout to discussion of case studies that emphasize broad impact of medicinal 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.

108. 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 1978, and their impact.

189H. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

288. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for biochemistry students of technologies and experimental data of genomics, as well as computational tools for analyzing them. Enforced requisites: course 172. Survey of synthesis, structure, and reactivity of transition metal complexes. History of radioactivity by Becquerel in 1896. Other activities and led by lecture course instructor. May be repeated. 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 1978, and their impact. Particular attention throughout to discussion of case studies that emphasize broad impact of medicinal 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.

298Y. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per unit. Enrolled in computer science: limited to undergraduate divisional 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. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for biochemistry students of technologies and experimental data of genomics, as well as computational tools for analyzing them. Enforced requisites: course 172. Survey of synthesis, structure, and reactivity of transition metal complexes.
C108. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, course; laboratory, four hours. Requisites: course 113A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, ES, 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, two terms. Requisites: courses 11A, 11B, 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). May be taken concurrently. Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamics of solutions, electrochemistry. P/NP or letter grading.

110B. Topics in Physical Chemistry. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 110A, 113A, Mathematics 32B, all with grades of C– or better. Kinetic theory of gases, principal statistical-mechanical systems, chemical 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: course 20B, Mathematics 32A, 32B, 3A, 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: Schrödinger versus Newton equations; model systems: particle-in-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron atoms, spin, and Pauli principle, chemical bonding. P/NP or letter grading.

C113B. Quantum Chemistry Methods. (4) Lecture, three hours; discussion, one hour, tutorial, one hour. Requisite: course 113A. Complete introduction to electronic structure theory methods used by general computational chemistry community, focusing primarily on ab initio methods. Students gain understanding of electronic structure methods and tools to identify which methods are suitable for which types of systems and problems. Students will include Hartree-Fock, density-functional theory, perturbative methods, and modern high-correlation methods; and highlight algorithms necessary to implement these methods efficiently. Concurrently scheduled with course C213B. P/NP or letter grading.

114. Physical Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 30A, and 30B, with grades of C– or better. Enforced corequisite: course 110B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, thermodynamic measurements, and chemical dynamics. P/NP or letter grading.

114H. Physical Chemistry Laboratory (Honors). (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30AL, 30A, and 30B, with grades of C– or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, elementary complex analysis, and solution of ordinary differential equations used in physical chemistry. P/NP or letter grading.

C115A-C115B. Quantum Chemistry, (4-4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 131 and of analytic mechanics equivalent to Physics 105A. Course C115A is equivalent to course 115A. Course C115B is equivalent to course 115B. Students entering course C115A are 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 quantum mechanics; expansion theorems; linear and angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C215A-C215B. P/NP or letter grading.


M117. Structure, Patterns, and Polymers. (5) (Same as Honors Collegium M180.) 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 frames), art (crystal structures, crystallography). Building on working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

118. Colloidal Dynamics Laboratory. (4) Lecture, two hours; laboratory, eight hours. Requisites: courses 110A and 110B, with grades of B or better, or equivalent statistical mechanics courses from engineering, mathematics, or physics. One aspect of dispersions of microscale particles in viscous liquids is that such dispersions can be used as visual model systems for studying phases that chemistry undergraduate students typically learn about for nanoscale and molecular systems. This course introduces the continuous dynamics of molecules and particles in a variety of fields, including real and complex biology, engineering chemistry, and materials science. P/NP or letter grading.

M120. Soft Matter Laboratory. (4) (Same as Physics M180G.) Lecture, 90 minutes; laboratory, four hours. Requisites: Physics 110B, 115B. Students gain experience in interdisciplinary research in experimental biological physics. Construction of modern microscopes. Use of microscope to image biological samples. Students learn fundamentals of microscopy, diffraction, imaging, microscopy, computational physics, and/or fluorescent labeling. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4) Lecture, four hours. Requisite: course 110B. Recommended: course 113A. Topics of considerable research interest presented at level suitable for students who have completed junior-year courses in physical chemistry. P/NP or letter grading.

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 calculus, 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. Concurrently scheduled with course 110B or 156. Recommended: course 113A. Rigorous presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, entropy, heat capacity, 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, ionic and non-ionic, chemical equilibrium, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, surface phenomena, high polymeric, and enzyme mechanisms. 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. Requisite: course 140 or 30A, with grades of C– or better. Introduction to Python programming and machine learning in Python and to machine learning and its many applications within chemical sciences. Topics include fundamentals of Python programming, routine numerical procedures such as linear regression, and overview of machine learning, with special emphasis on neural networks and deep learning, including implementation. Exploration of mainstream applications and machine learning algorithms in the chemical interest, including molecular simulation, protein structure prediction, and computer-aided drug and material design/discovery. Particular topics to be covered and projects or computer experiments may be decided in part based on student interest and input. P/NP or letter grading.

C126A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Requisites: courses 110A, 113A, Mathematics 33A. Covers some basics of scientific coding. Introduction to advanced applications provided through commercially available computational packages. Includes numerical methods, techniques for chemistry, reactivity, spectroscopy, solid state calculations; statistical mechanical techniques for chemistry and biochemistry; python coding, basic algorithms, matrix and numerical techniques. Concurrently scheduled with course C226A. P/NP or letter grading.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemical Engineering CM127.) Lecture, four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biological regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. An overview of abiotic and biobased biochemical, 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.

C132A. Core Principles in Cell and Molecular Biology. (4) Lecture, four hours; discussion, one hour. Requisites: Life Sciences 75 or 122L. Students gain foundational knowledge and skills for rigorous research in emerging areas of cell and molecular biology. Focus on foundational knowledge of cell and molecular biology research areas including cell cycle, cell signaling, cell movement, cell communication, cell states and fates, genomes, and proteomes. Focus on skills development for cell and molecular biology research. Students are exposed to cutting-edge experimental approaches, and acquire hands-on skills training in designing experiments and analyzing data using these approaches. Students meet with directors of shared core facilities that specialize in these approaches to facilitate use of these approaches in their research. Continuation of in-depth analysis of rigorous experimental design and statistical analyses in cell and molecular biology. Concurrently scheduled with course C233A. P/NP or letter grading.


C138. Natural Product Biochemistry: Chemical Logic and Enzymatic Machinery. (4) Lecture, three hours; computer laboratory, one hour. Requisites: courses 30A, 30B, 30C, 135A. Covers fundamental chemical logic and enzyme mechanisms involved in biosynthesis of natural products. Discussion of major classes of natural products and their product function, including nonbiological peptides, terpenes, alkaloids. Emphasis on bioisotopic logic used by nature to form complex molecules. Discussion of several important enzyme families in con-
text of biosynthesis, including assembly-line me
-gasynthesis, group transferases, oxidoreductases,
etic analysis of pathway isolation and charac-
ization, as well as modern account of syn-
thetic biology and genome based efforts that are used in
discover new products. Includes criti-
ive survey of scientific literature in format of presen-
tations and discussions. Concurrently scheduled with
course C238. Letter grading.

C140. Bionanotechnology (4). (Lecture, three hours.
Prerequisites: courses 30C, 110A. Basic physical, chem-
ical, and biological principles in bionanotechnology;
materials and strategies for top-down and bottom-up
fabrication of biologically derived topological charac-
terization and detection techniques, and bio-
metric materials and applications at nanoscale.
Con-
currently scheduled with course C240. P/NP or letter
grading.

C143A. Structure and Mechanism in Organic Chemistry. (Lecture, three hours; discussion, one
hour. Prerequisites: courses 30C and 30CL (may be
taken concurrently), 110B, and 113A, with grades of
C– or better. Mechanisms of organic reactions. Acidity
and acid catalysis; linear free energy relationships;

iso-
tope effects. Molecular orbital theory; photochemistry;
pericyclic reactions. May be concurrently scheduled with
another course with P/NP grading.

C143B. Mechanism and Structure in Organic Chemistry. (Lecture, three hours; discussion, one
hour. Prerequisite: 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. (Lecture, two hours; laboratory, eight
hours. Enforced prerequisites: courses 30C and 30CL,
with grades of C– or better. Lectures on modern syn-
thetic reactions and processes, with emphasis on ste-
reo- and regioselectivity, carbon bond forma-
tion. Laboratory methods of synthesis in organic chem-
istry, including reaction techniques, synthesis of nat-
ural products, and molecules of theoretical interest.
P/NP or letter grading.

C145. Theoretical and Computational Organic
Chemistry. (Lecture, two hours; discussion, one
hour; computer laboratory, one hour. Prerequisites:
courses 30C, 113A. Applications of quantum mechan-
ical concepts and methods to understand and predict
organic structures and reactivities. Computational model-
ing 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 ca-
role paths in areas such as industry, government,
research and development, education, law, and health-
care, explain how their education in chemistry and bio-
chemistry helped them become successful, and
what actual chemistry was used in their particular pro-
fessions. Students learn and understand real-life ap-
plications of chemical concepts found in their course-
work. P/NP or letter grading.

C150. Research Methods and Integrity in Cellular
and Molecular Biology. (4) Lecture, two hours; dis-
cussion, two hours. Data analysis and management,
statistical methods, use of laboratory and reagents,
figure preparation, authorship, mentoring, human sub-
jects protection, animal subject protection, and con-
ict of interest. May be repeated for credit. Concur-
rently scheduled with course CM250. Letter grading.

151. Machine Learning for Chemistry. (4) (Formerly
numbered 51.) Lecture, three hours. Prerequisites:
course 20B or 20BH, Mathematics 33A or 33AH.
Introduction to machine learning and its many applications within
chemistry and biochemistry. Techniques include greedy
approaches for modeling large and complex data sets,
including neural networks and deep learning, super-
vised and unsupervised learning, and dimensionality
reduction. Exploration of mainstream applications of
machine learning to problems of chemical interest, in-
cluding 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 and projects to be
completed may be decided in part based on student
interests in discover new products. Includes criti-
ive survey of scientific literature in format of presen-
tations and discussions. Concurrently scheduled with
course C238. Letter grading.

153A. Biochemistry: Introduction to Structure, En-
zymes, and Metabolism. (4) Lecture, four hours; dis-
cussion, one hour. Prerequisite: course 140D or 30B,
with grade of C— or better. Recommended: Life Sciences
2, 3, and 23L, or 7A. Structure of proteins, carbohy-
drates, and lipids; enzyme catalysis and principles of
metabolism, including glycolysis, citric acid cycle, and
oxidative phosphorylation. P/NP or letter grade C–
or better. Mechanisms of organic reactions. Acidity
and acid catalysis; linear free energy relationships;
iso-
tope effects. Molecular orbital theory; photochemistry;
pericyclic reactions. May be concurrently scheduled with
another course with P/NP grading.

153B. Biochemistry: DNA, RNA, and Protein Syn-
thesis. (4) Lecture, three hours; discussion, one hour;
tutorial, one hour. Prerequisite: course 153A or 153AH.
Recommended: Life Sciences 2, 3, and 23L, or 7A and
7B. Nucleotide metabolism; DNA replication; DNA re-
pair; transcription machinery; regulation of transcrip-
tion; RNA structure; protein synthesis and processing.
P/NP or letter grading.

153BH. Biochemistry: DNA, RNA, and Protein Syn-
thesis (Honors). (4) Lecture, three hours; discussion,
one hour; tutorial, one hour. Prerequisite: course 153A or
153AH, Life Sciences 2, 3, 23L, Honors course parallel to
course 153B. P/NP or letter grading.

153C. Biochemistry: Biosynthetic and Energy Me-
tabolism and Its Regulation. (4) Lecture, two
hours; discussion, one hour; tutorial, one hour. Requi-
site: course 153A or 153AH. Metabolism of carbohy-
drates, fatty acids, amino acids, and lipids; photosyn-
thetical and assimilation of inorganic nutri-
tants; regulation of these processes. P/NP or letter
grading.

153Ch. Biochemistry: Biosynthetic Energy Me-
tabolism and Its Regulation (Honors). (4) Lecture,
three hours; discussion, two hours. Prerequisite: course
153A or 153AH. Honors course parallel to course
153C. P/NP or letter grading.

153D. Introduction to Protein Structural Biology.
(Lecture, three hours; discussion, one hour. Requir-
te: courses 153A or 153AH. Proteins are an
diverse set of macromolecules that perform critical func-
tions within cells, ranging from enzymes that cata-
lize metabolic reactions to proteins that enable patho-
gens to cause disease. Introduction to field of protein
structural biology, that seeks to understand molecular
basis of protein function through visualizing atomic
structures and by investigating how alterations in pro-
tein structure affects function. Students gain funda-
mental understanding of protein structure and its rela-
tionship to function and learn how experimental and
computational methods are used to determine three-
dimensional structures of proteins. Hands-on training
in computer graphics programs and online tools used
to visualize and analyze protein structures. Letter
grading.

153L. Biochemical Methods I. (4) Lecture, two hours;
laboratory, four hours. Prerequisites: courses 140L, or
20L and 30AL, and 153A or 153AH (may be taken
currently), with grades of C— or better. Integrated term-
project approach presented in lab and lecture; use of
bio-
teria. Purification of key enzyme for alcohol production
from bacteria via affinity chromatography. Assessment
of protein amount, purity, and activity of enzyme. Techniques include: isolation by Bradford
assay, polyacrylamide gel electrophoresis, immuno-
 blotting, and enzyme activity assays to determine en-
zyme activity (Km, Vmax, inhibitor studies). P/NP or
letter grade C– or better.

154. Biochemical Methods II. (Lecture, two hours;
laboratory, eight hours. Enforced prerequisites: courses
153A or 153AH, 153B or 153BH, and 153L, with
grades of C— or better. Recommended: course 156.
Two to three major laboratory projects using biochem-
ical laboratory techniques to investigate contemporary
problems in biochemistry. Topics include transcription
activation, molecular basis of DNA-protein interac-
tions, biochemical basis of platelet activation, and ini-
tiation of blood clotting cascade. Experiments entail
characterizing function of proteins, nucleic acids, and
lipids involved in these processes. P/NP or letter
grading.

C155. Mitochondria in Medicine, Biology, and
Chemistry. (Seminar, two hours every other week.
Open to undergraduate and graduate majors consid-
ering or currently conducting research in areas
related to mitochondria. Large number of physiolog-
ical and pathophysiological processes involving mito-
chondrial function and dysfunction. Focus on under-
standing how mitochondria metabolism, form, and
function impact health and disease. Physiology and
biochemistry of healthy and dysfunctional mitochondria
critically assessed at subcellular, cellular, tissue, and
organismal levels. Topics include in-depth analyses
development and application of computational ap-
proaches to biological questions, with focus on formulating in-

156. Physical Biochemistry. (Lecture, four hours;
discussion, one hour. Prerequisites: courses 110A, 153A.
Recommended: Methods of Physics; use of bio-
chemical systems; multiple equilibria; hydrodynamics;
energy levels, spectroscopy, and bonding; topics from
structural, statistical, and electrochemical methods of
biochemistry. P/NP or letter grading.

M157. Food: Molecules, Microbes, Environment. (Same as Food Studies M157.) Lecture, three
hours; discussion, one hour. Prerequisite: course 153A.
Recommended prerequisites: Life Sciences 7A, 7B. Study
development and application of computational ap-
proaches to biological questions, with focus on formulating in-

CM160A. Introduction to Bioinformatics. (Same as Computer Science CM121.) Lecture, four hours;
discussion, two hours. Prerequisites: Computer Science
32 or Program in Computing 10C with grade of C–
or better, and one course from Civil and Environmental
Engineering 110, Electrical and Computer Engineering
131A, Mathematics 170A, Mathematics 170E, or Sta-
tistics 100A. Prior knowledge of biology not required.
Designed for engineering students as well as students
from biological sciences and medical school. Intro-
duction to bioinformatics and methodologies, with
emphasis on concepts and computational and
statistical and statistical techniques to analyze biological
data. Focus on sequence analysis and alignment algo-
rithms. Concurrently scheduled with course CM269A.
P/NP or letter grading.

CM160B. Algorhythmics in Bioinformatics. (Same as Computer Science CM122.) Lecture, four hours;
discussion, two hours. Prerequisites: Computer Science
32 or Program in Computing 10C with grade of C–
or better, and one course from Civil and Environmental
Engineering 110, Electrical and Computer Engineering
131A, Mathematics 170A, Mathematics 170E, or Statistics
100A. Prior knowledge of biology not required.
Designed for engineering students as well as students
from biological sciences and medical school. Dev-
lopment and application of computational approaches
to biological questions, with focus on formulating in-

terdisciplinary problems and computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM250B. Letter grading.

C164. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours; laboratory, two to three hours. Requisite: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial metabolism, neurodegenerative diseases, and aging. Discussion of radical reactions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. These same reactions run amok under certain types of stress and can contribute to wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, and Alzheimer’s diseases), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C264. 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 modification of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course C134B. 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 years have seen explosion in biochemical characterization of small RNA molecules, in addition to their structural and functional analysis. RNA molecules now being used as therapeutic agents in gene therapy approaches. Coverage of these various topics 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 308 with grade of C– or better. Chemical bonding; structure and bonding in solid state; main group; transition metal, lanthanide and actinide compounds and reactions; catalysis, spectroscopy, special topics. P/NP or letter grading.

C172. Advanced Inorganic Chemistry. (4) (Formerly numbered M172.) Lecture, three hours; discussion, one hour. Requisite: course 171 with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, vibrational spectra of complexes, electronic structure and ligand-field theory, mechanisms of inorganic reactions, bonding and spectroscopy of organometallic compounds, and reactions in catalysis and bioinorganic chemistry. Concurrently scheduled with course C272. P/NP or letter grading.

C173. Electrochemical Systems. (4) Lecture, three hours; laboratory, two hours. Requisite: course 110A. Mathematics 33B. Introduction to principles of electrochemical systems commonly applied in research of inorganic chemistry, materials sciences, and nanotechnology. 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 C273. P/NP or letter grading.

C174. Inorganic and Metalorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C– or better. Synthesis of inorganic compounds, including air-sensitive materials; Schlenck techniques; chromatographic and ion exchange methods; spectroscopic characterization and literature applications. Concurrently scheduled with course C274. P/NP or letter grading.

C175. Inorganic Reaction Mechanisms. (4) Lecture, three hours. Requisites: courses 110A, 110B, 113A, and 172, with grades of C– or better. Survey of inorganic reactions; mechanistic principles; electronic structure of metal ions; transition-metal coordination chemistry; inner- and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free/ radical polymerization, and photochemical reactions of inorganic species. May be concurrently scheduled with course C275. P/NP or letter grading.

C176. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: 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, physical, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with course C268. P/NP or letter grading.

C180. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course 172 with grade of C– or better. Modern approach to solid-state chemistry. Four hours; discussion, one hour. Requisites: courses 308, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions 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 C280. P/NP or letter grading.

184. Chemical Instrumentation. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 110A, with grades of C– or better. Theory and practice of instrumental techniques of chemical analysis; quantitative analytic absorption spectroscopy, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.


186. Stochastic Processes in Biochemical Systems. (4) (Same as Computational and Systems Biology M175.) Lecture, three hours. Requisites: Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C, Mathematics 33B, Electrical and Computer Engineering 131A or Mathematics 170A or Statistics 100A. Covers random and stochastic processes in play in biochemical systems, including ion channels, cytoskeleton, cell migration, and molecular networks, and signal transduction. Covers mathematical tools such as continuous and discrete Markov processes, first passage, time escape problems, statistical mechanics, and chemical rate equations. Enforced requisite: courses 110A or better. Letter grading.

188SA. 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.

188SB. 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 188 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 undergraduate or transferable courses. Honors content noted on transcript. P/NP or letter grading.

192A-192B. Undergraduate Practicum in Chemistry and Biochemistry. (1-4) Seminar, four hours; workshop, two hours. Enforced requisites: courses 148L and 14CL, or 20L and 30AL, or Science Education 100SL. Intended for students who are in or entering careers in science education. Focuses on science teaching. Complements service learning California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Examination of chemistry issues such as chemical storage and use, waste management, laboratory organization, safety, and techniques. P/NP or letter grading.

192C-192D. Undergraduate 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 who take 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 professor. Letter grading.

M192E. Introduction to Collaborative Learning Theory and Practice. (1) (Formerly numbered 192E.) (Same as Computer Science M192A, Life Sciences M192A, Mathematics M192A, and Physics M192.) 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 frequent assessment of and feedback on progress. Letter grading.

193. Seminar and Application of Collaborative Learning Theory and Practice: Introduction, Methods, and Applications. (2 to 4) Seminar; one hour; clinic, one to eight hours. Requisite: course 192E or Life Sciences 192A or Departmental Approval with grade of C– or better. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instruc-
203B. Ethics in Chemical Research. (2) Seminar, one hour. Discussion of ethics in graduate education, teaching, and chemical research, including issues such as conflicts of interest, plagiarism, intellectual property, sexual harassment, and other topics related to ethical conduct of research. S/U grading.

203C. Research Integrity and Ethics in Genetics Research. (2) Lecture, 90 minutes. Data analysis and management, statistical methods, use of commercial reagents, microscopy data analysis, figure preparation, authorship and review, animal subject protection, and conflict of interest. May be repeated for credit. S/U grading.

203D. Advanced Topics in Responsible Conduct in Chemical Research. (2) Seminar, two hours. Enforced requisite: course 203A or 203B or 203C. Cellular and molecular biology PhD students continue to learn how to conduct research in field to reliably advance knowledge while maintaining ethical principles. Designed to be taken in fourth or fifth year of PhD work where students would have already been exposed to many challenges of performing and reporting experiments and who are in stage of their careers where they are beginning to think of applying for postdoctoral fellowships and research and teaching positions. Course helps fulfill training requirement in research training grants and individual NRSA awards. S/U grading.

204. Student Research Seminar. (2) Seminar, one hour. Limited to students supported by UCLA program in Cellular and Molecular Biology Predoctoral Training. Research seminars scheduled by second- and third-year students. S/U grading.

C205A. Introduction to Chemistry of Biology. (4) (Same as Pharmacology M205A) Lecture, three hours; discussion, one hour. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, peptide-mimetics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, metal ions, interactions of metal ions, imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course C105. Letter grading.

C205B. Issues on Chemistry/Biology Interface. (2) (Same as Pharmacology M205B) Seminar, one hour. Enforced requisite: course CM205A. Selected talks and papers presented by training faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface. S/U grading.

206. Chemistry of Biology Seminar. (2) Seminar, three hours. Limited to students supported by UCLA program in Chemistry/Biology Interface Predoctoral Training. Current research topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

207. Organometallic Chemistry. (4) Lecture/discussion, three hours. Requisite or corequisite: 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 olefin complexes and metal carbyllic; applications in catalysis and organic synthesis. Concurrently scheduled with course C107. S/U or letter grading.

208. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C108. S/U or letter grading.

209. Introduction to Chemistry Research. (2) Seminar, two hours. Half-hour presentations each session by three different graduate students to introduce their research programs. S/U grading.

210. Advanced Topics in Chemical Research. (2) Seminar, one hour. Designed for second-year graduate students to help them engage contemporary challenges in chemical research projects, building of critical thinking skills and proposal writing skills. S/U grading.

215B. Quantum Chemistry Methods. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Complete introduction to electronic structure theory methods used by general computational chemistry community, focusing primarily on ab initio methods, understanding of electronic structure methods and tools to identify which methods are suitable for which types of systems. Methods covered include Hartree Fock, density-functional theory, post-Hartree-Fock methods, and modern high-correlation methods; and highlight algorithms necessary to implement these methods efficiently. Concurrently scheduled with course C113B. Independent study project required of graduate students. S/U or letter grading.

C215A-C215B. Quantum Chemistry Methods. (4–6) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 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 or Physics 115B with grade of C– or better is requisite to C215B. Students entering course C215A are normally expected to take course C215B in following term. Designed to integrate with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; molecular orbitals; variational techniques; approximation methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C115A-C115B. 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 research literature in area of photophysics, spectroscopies, with focus on materials and biophysics applications. Literature discussion, discussion of recent results, safety procedures, and guest lectures. S/U grading.


221A-221Z. Advanced Topics in Physical Chemistry. (2 to 4 each) Lecture, two to four hours. Each course encompasses one recognized specialty in physical chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.
C222. 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 C212. S/U or letter grading.

C223A-C223B. Classical and Statistical Thermodynamics. (4–4) Lecture, four hours; discussion, one hour. Requisites: courses 151A and 156. Recommended: course 113A. Presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independence of perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and liquid states, phase equilibria, electric and magnetic effects, ortho-para-hydrogen, chemical equilibrium, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B. S/U or letter grading.


C226A. Computational Methods for Chemists. (4) Lecture, one hour; laboratory, four hours. Requisites: courses 110A, 113A, Mathematics 35A. Covers some basics of scientific computing. Introduction to advanced applications provided through commercially available computational packages. Includes quantum mechanical techniques for chemistry, reactivity, spectroscopy, solid state calculations; statistical mechanical techniques for chemistry and biochemistry; python coding, basic algorithms, machine learning, and numerical techniques. Concurrently scheduled with course C126A. S/U or letter grading.

CM227. Synthetic Biology for Biofuels. (4) (Same as Chemical Engineering CM227) Lecture, four hours; discussion, one hour. Requisite: course C135A. Engineering microorganisms for complex phenotype is common ground of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. Students require profound understanding of biochemistry, protein structure, and biological regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic pathway structure and function are presented with an emphasis on biotechnology. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM127. S/U or letter grading.

228. Chemical Physics 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.

229. Introduction to Physical Chemistry Research. (2) Lecture, two hours; laboratory, two hours. Designed primarily for entering graduate physical chemistry students. S/U grading.

M230B. Structural Molecular Biology. (4) (Same as Molecular, Cell, and Developmental Biology M230B) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure; structures of globular proteins, nucleic acids, and ribosomes; structures of fibrous proteins, elastin, collagens, and polysaccharides; harmonic analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction techniques. S/U or letter grading.

M230D. Synthetic Molecular Biology Laboratory. (2) (Same as Molecular, Cell, and Developmental Biology M230D) Laboratory, 10 hours. Corequisite: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-di- mensional reconstruction from electron micrographs, and model building. S/U or letter grading.

C232A. Core Principles in Cell and Molecular Biology. (4) Lecture, four hours. Requisites: Life Sciences 7A, 7B, 7C, 23L. Students gain broad foundational knowledge and research in emerging areas of cell and molecular biology. Focus on founda- tional knowledge of cell and molecular biology research areas including cell cycle, cell signaling, cell metabolism, cell adhesion, and genetic modification. Students are taught to evaluate research studies and to identify gaps in their understanding of research in cell and molecular biology. S/U or letter grading.

C232B. Skills Development for Cell and Molecular Biologists. (2) Seminar, two hours. Students are trained to develop skills necessary to persist and thrive as researchers. Techniques for cellular and mole- cular biology topics include resilience in science, balancing work/life, organizing research and career goals, writing impactful abstracts, and presenting on difficult topics. S/U grading.

C232C. Advanced Topics and Approaches in Cell and Molecular Biology Research. (2) Seminar, two hours. Students are trained in current research problems in cellular and molecular biology, and how modern approaches are used to address these problems. Topics vary based on topical questions and emerging methods/technologies in cellular and molec- ular biology research. S/U grading.

C233A. Computational Methods for Cell and Molecular Biologists. (2) Seminar, two hours. Provides career training to prepare cellular and molecular biology trainees for biomedical careers. Topics include ex- periment design and analysis, non-traditional paths, and building start-ups; creating professional re- sumes, cover letters, and job opportunity networks; and connecting to internships on and off campus. S/U grading.


236. Spectroscopic Methods of Organic Chemistry. (4) Lecture, three hours. Requisite or corequisite: course C243A. Problem solving using proton and carbon 13 nuclear magnetic resonance, infrared spec- troscopy, and mass spectrometry; new techniques in NMR, IR, and MS, with emphasis on Fourier transform NMR. S/U or letter grading.

C238. Natural Product Biosynthesis: Chemical Logic and Enzymatic Machinery. (4) Lecture, three hours; discussion, one hour. Covers fundamental concepts of how enzyme mechanisms were developed in biosynthesis of natural products. Discussion of major classes of natural product including polyketides, non- ribosomal peptides, terpenes, alkaloids. Emphasis on “enzymology” logic for form complex molecules. Discussion of several important enzyme families in context of biosynthesis, including assembly-line megasyntheses, group transfersases, oxidoreductases, etc. Historical account of natural product isolation and characterization, as well as modern account of synthetic biology and genome based efforts that are used in discovery of new natural products. Includes extensive survey of scientific litera- ture, a focus on problems and creation of new ideas. Concurrently scheduled with course C138. Letter grading.

C240. Bionanotechnology. (4) Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chem- ical, and biological principles in bionanotechnology; materials and strategies for top-down and bottom-up fabrication of ordered biologically derived molecules, characterization and detection techniques, and biomoi- meteric materials and applications at nanoscale. Con- currenty scheduled with course C140. S/U or letter grading.

241A-241Z. Special Topics in Organic Chemistry. (2 to 4 each) Lecture, two to four hours. Requisite or corequisite: course C243A. Each course encom- passes one recognized specialty in organic chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

C243A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanisms of organic reactions. Acidic and basic catalysis; linear and non-linear reactions; iso- tope effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C143A. S/U or letter grading.

C243B. Organic Chemistry: Mechanism and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organic re- actions; structure and detection of reactive intermedi- ates. May be concurrently scheduled with course C143B. S/U or letter grading.

244A. Organic Synthesis: Methodology and Stereo- chemistry. (4) Lecture, three hours; discussion, one hour. Modern synthetic reactions and transformations influencing organic synthesis. Special emphasis on re- gents useful in asymmetric induction and stereoselec- tive synthesis of structurally complex target mole- cules. S/U or letter grading.


C245. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 137, 113A. Applications of mechan- ical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with theoretical and quantum mechanical computer calculations. Concurrently scheduled with course C145. S/U or letter grading.

247. Organic Colloquium. (2) Seminar, two hours. Seminars in organic chemistry and related areas pre- sented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.


249A. Methods of Materials Chemistry: Synthesis, Characterization, Physical Properties, Applica- tions, and Devices. (2) Seminar, two hours. Des- signed for first-year graduate students to teach ad- vanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to materials chemistry. How materials are synthesized and characterized. Discussion of important physical properties, as well as broad range of applications and behavior in devices. S/U grading.
CM255, Mitochondria in Medicine, Biology, and Chemistry. (1) Same as Biological Chemistry M255.) Seminar, two hours. Open to undergraduate and graduate students. Discussion of current research in areas related to mitochondria. Focus on understanding mitochondria metabolism, form, and function. Letter grading.


CM260A. Introduction to Bioinformatics. (4) Same as Bioinformatics M221, Computer Science 25221, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 232 or Program in Computing 10C with grade of C– or better, and one course from the following: Computer Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Prior knowledge of biology not required. For students currently conducting research in areas related to mitochondria. May be repeated for credit.

CM260B. Algorithms in Bioinformatics. (4) Same as Bioinformatics M222 and Computer Science 25222.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 232 or Program in Computing 10C with grade of C– or better, and one course from the following: Computer Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Course CM260A is not a prerequisite for CM260B. Letter grading.

CM260C. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours. Enforced requisites: course CM260A. Corequisite: course CM260B. Development and application of algorithmic approaches to ask and answer biological questions by implementing variety of bioinformatics and systems biology algorithms. Laboratory work is focused on computational bioinformatics, with emphasis on the development of computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Letter grading.


CM260E. Biomolecular Structure, Catalysis, and Regulation of Protein Translocation Systems. (3) Lecture, two hours; discussion, two hours. Requisites: courses 269A through 269D. Protein translocation into nucleus, mitochondrial protein translocation, and protein export in bacteria. Letter grading.

CM260F. Cellular Processes and Mechanisms. (2) Seminar, two hours. Seminars in chemical biology (broadly defined) presented by outside speakers, graduate students, postdoctoral fellows, and faculty/staff from diverse scientific backgrounds. Letter grading.

CM264. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial metabolism, neurodegenerative diseases, and aging. Dynamics of radical reactions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. Letter grading.

CM265. Metabolic Control by Protein Modification. (4) Lecture, three hours; discussion, one hour. Requisites: courses 153A, 153B, 153C. Biochemical basis of metabolic control by posttranslational modification of proteins, including phosphorylation and ubiquitination. Reaction mechanisms. Letter grading.


CM270. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) Lecture, two to three hours; discussion, zero to two hours. Requisites: courses 153A and 269C, or Life Sciences 3 and 23L, and 269B and 23L. Photosynthesis, a major source of carbohydrates, provides the chemical energy for the biosphere. Assembly of photosynthetic complexes and regulation of genes encoding those components. Emphasis on understanding of experimental approaches. Letter grading.

CM272. Biochemistry and Molecular Biology of Photosynthesis. (2 to 4) Lecture, two to three hours; discussion, zero to two hours. Requisites: courses 153A and 269C, or Life Sciences 3 and 23L, and 269B and 23L. Photosynthesis, a major source of carbohydrates, provides the chemical energy for the biosphere. Assembly of photosynthetic complexes and regulation of genes encoding those components. Emphasis on understanding of experimental approaches. Letter grading.

CM275. Methods of Chemical Synthesis: Organic/Inorganic/Organometallic. (2) Seminar, two hours. Designed for first-year graduate students to teach advanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to chemical synthesis of organic, inorganic, and organometallic compounds. S/U grading.

CM290 / Chemistry and Biochemistry and Molecular Biology. (4) Required for first-year graduate students to teach advanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to physical, theoretical, and biophysical chemistry. S/U grading.

C250. Research Methods and Integrity in Cellular and Molecular Biology. (2) Seminar, two hours. Data analysis and management, statistical methods, use of antibody and kits reagents, figure preparation, authorship, mentoring, human subjects, and research ethics. May be repeated for credit. S/U or letter grading.

C260. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours. Enforced requisites: course CM260A. Corequisite: course CM260B. Development and application of algorithmic approaches to ask and answer biological questions by implementing variety of bioinformatics and systems biology algorithms. Letter grading.
271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encompasses one recognized specialty in inorganic chemistry, 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 modern inorganic chemistry, structure and bonding of inorganic and organometallic compounds, transition metal chemistry; spectroscopy of organometallic compounds, transition metals in catalysis and biology. Concurrently scheduled with course C172. S/U or letter grading.

272A-272N. Seminars: Research in Inorganic Chemistry. (2 each) Seminar, three hours. Open to, and limited to, entering graduate inorganic chemistry students. S/U or letter grading.

C273. Electron spectroscopy for molecules and solids. Structure/reactivity. (3) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Theory and practice of modern crystallography, substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free-radical, polymerization, and photochemical reactions of inorganic species. May be concurrently scheduled with course C175. S/U or letter grading.

C274. Inorganic and Metalorganic Laboratory Methods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C- or better. Synthesis of inorganic compounds, including air-sensitive materials; Schlenck techniques; chromatographic and ion exchange, spectroscopic characterization and literature applications. Concurrently scheduled with course C174. S/U or letter grading.

C275. Inorganic Reaction Mechanisms. (4) Lecture, three hours; laboratory, 110A, 110B, 113A, and 172, with grades of C- or better. Survey of inorganic reactions; mechanistic principles; electronic structure of metal ions; transition-metal coordination chemistry; inorganic photochemistry and outer-sphere and chelate complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free-radical, polymerization, and photochemical reactions of inorganic species. May be concurrently scheduled with course C175. S/U or letter grading.

C276A. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. 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 C176. S/U or letter grading.


C277. 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.

C280. Solid-State Chemistry. (4) Lecture, three hours. Requisite: 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.

C281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization methods, and special topics such as conductive and biomaterials polymers and polymeric reagents in synthesis. Concurrently scheduled with course C181. S/U or letter grading.

C282. 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.


C287. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. May be repeated for credit. S/U grading.

598, 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.
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

Entry to the Major
Transfer Students
Transfer applicants to the Chicana and Chicano Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary Chicana/Chicano history and culture course, one interdisciplinary Chicana/Chicano social structure and contemporary conditions course, and five quarter terms of Spanish.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Chicana/o and Central American Studies 10A, 10B, Spanish 5 or equivalent.

The Major
Required: A total of 11 upper-division courses, including Chicana/o and Central American Studies 101; one service learning course from 100XP or 170XP 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, CM147, 151, 152, 153A, M154, M155A, M156A, 163, 176, 184, 191


Honors Program
The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana/o and Central American Studies 198A, 198B, and 198C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Optional Multidisciplinary Senior Thesis
Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.

Policies
The Major
No more than 8 units of 188, 191, and 199 courses may be applied toward the major; enrollment in the courses must be approved in writing by the department chair.

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

Honors Program
The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a year-long research or creative project with the guid-
The Chicana and Chicano Studies minor may be applied toward the minor. Courses (197, 199) approved by the adviser. A maximum of 4 units of special studies overall grade-point average of 2.0 or better. Admission To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student adviser in 7351 Bunche Hall. The Minor Required Lower-Division Courses (10 units): Chicana/o and Central American Studies 10A, 10B. Required Upper-Division Courses (20 units minimum): Chicana/o and Central American Studies 101 and four elective courses (20 units minimum) selected from the approved list (available in the department office each term). 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 Chicana and Chicano Studies MA, PhD 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. Policies A maximum of 4 units of special studies courses (197, 199) approved by the adviser may be applied toward the minor. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma. Chicana and Chicano Studies Minor The Chicana and Chicano Studies minor complements study in another traditional field. Students participating in the minor are required to complete both a departmental major in another discipline and the Chicana and Chicano Studies minor. Admission To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student adviser in 7351 Bunche Hall. The Minor Required Lower-Division Courses (10 units): Chicana/o and Central American Studies 10A, 10B. Required Upper-Division Courses (20 units minimum): Chicana/o and Central American Studies 101 and four elective courses (20 units minimum) selected from the approved list (available in the department office each term). 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. Chicana/o and Central American Studies Lower-Division Courses 10A. Introduction to Chicana/Chicano Studies: History and Culture. (Formerly numbered Chicana and Chicano Studies 10A.) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic/racial paradigms, including indigenousness, gender, sexuality, language, and borders, that help shape Chicana/Chicano identities. Emphasis on critical reading and writing skills. Letter grading. 10B. Introduction to Chicana/Chicano Studies: Social Structure and Contemporary Conditions. (Formerly numbered Chicana and Chicano Studies 10B.) Lecture, three hours; discussion, one hour. Multidisciplinary examination of the ideologies, and material conditions of Chicanas/Chicanos, including colonialism, race, labor, immigration, poverty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading. M16. Leadership and Student-Initiated Retention. (Formerly numbered Chicana and Chicano Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading. 19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading. 20. Central American Studies: Histories and Cultures. (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, independence movements, 19th- and 20th-century dependency, state/nation and identity formation, politics of mestizaje, Indigenous resistance, imperialism and economic growth, relations with U.S., politics of development, and contemporary social movements. Letter grading. 88. Sophomore Seminars: Chicana/o and Central American Studies. (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, limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading. 89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading. 97. Variable Topics in Chicana/o and Central American Studies. (Formerly numbered Chicana and Chicano Studies 97.) Seminar, two hours. Requisite: course 10A or 10B. Current topics and particular research methods in Chicana and Chicano studies through readings and other assignments. May be repeated 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 issues of professional (nonacademic) settings and careers through readings and other assignments. May be repeated for credit. 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

100XP. Barrio Organization and Service Learning. (5) (Formerly numbered 100SL) Seminar, two hours; discussion, two hours; field placement, six hours. Limited to juniors/seniors. Service learning placement in community-based barrio service learning. Federally-funded, non-profit organization. Study of role that these organizations play in improvement and change of Chicana/Chicana 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 M102J) (Same as Education M102) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicana educational issues in U.S., with special emphasis on disenfranchising effects of race, gender, class, and immigration status on Chicana/ Chicana educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicana educational experience. P/NP or letter grading.

M103C. Origins and Evolution of Chicano Theater. (5) (Formerly numbered Chicana and Chicano Studies M103C) (Same as Theater M103C) Lecture, three hours. Designed for juniors/seniors. Exploration of development of Chicano theater from its beginning in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s). P/NP or letter grading.

M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (5) (Formerly numbered Chicana and Chicano Studies M103D) (Same as Theater M103D) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical productions that led to emergence of Chicano theater. Letter grading.


104. Comedy and Culture: Your Humorous Life. (4) (Formerly numbered Chicana and Chicano Studies 104J) Lecture, four hours. Four and one-half hours. How to mine unique humorous life adventures from students' cultural identities and those distinct experiences into cultural and social literary traditions. Students are asked to read their stories out loud, with emphasis on comedy in their pieces through art of storytelling and performance. P/NP or letter grading.

104A. Art of Performance. (4) (Formerly numbered Chicana and Chicano Studies 104A) Seminar, four hours. Examination of seminal works of Latina/o theatre artists with particular focus on creating and embodying personal histories in performance. Features dramatic plays, autobiographical texts, and ensemble devised works that reflect changing nature of Latina/o/x theatrical traditions. Students are asked 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. Required: English Composition 3. Study of essays, novels, short narratives, and plays written by Chicanas and Latinas. Required readings represent writers with focus on themes of identity, ethnicity, gender, and cross-border experiences leading to social change. Critical reading and analysis of works, searching for strengths and flaws, to point out unique contributions of Chicana as a greater body of U.S. literature. P/NP or letter grading.


142. Day of Dead Ritual. (4) (Formerly numbered Chicana and Chicano Studies C113) Lecture, four hours. 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/Chicana community and dominant society. Attention to Anglo-European and Third World women. Offered every other course. P/NP or letter grading.

150. Mexican Americans and Schools. (4) (Formerly numbered Chicana and Chicano Studies 150) Lecture, four hours. Examination of Chicana and Chicano educational experience. Letter grading.

M105B. Chicana/Chicana Literature from Mexican Revolution to el Movimiento, 1920 to 1970s. (5) (Formerly numbered Chicana and Chicano Studies M105B) Lecture, four hours; discussion, one hour (scheduled). Enforced requisite: English Composition 3. Chicana/Chicana literature from 1920s through the Great Depression and World War II to Chicano civil rights movement. Oral and written narratives by writers including Conrado Espinoza, Jovita González, Cleofás Jaramillo, Angelico Chávez, Mario Suárez, Oscar Acosta, and Evangelina Vigil. P/NP or letter grading.

M105C. Chicana/Chicana Literature since el Movimiento, 1970s to Present. (5) (Formerly numbered Chicana and Chicano Studies M105C) (Same as English M105C) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of Chicana/Chicana literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central and South American migration have shaped 21st-century chicana- dorality. Oral, written, and graphic fiction, poetry, and drama by writers including Lourdes Portes Auldúa, Los Bros Hernández, Ana Castillo, and Dagoberto Gilb guide exploration of queer and feminist studies, Reagan generation, immigration debates, and emerging Latina/Latino majority. P/NP or letter grading.

M105D. Introduction to Latina/Latino Literature. (5) (Formerly numbered Chicana and Chicano Studies M105D) (Same as English M105D) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of U.S. Latina/Latino literature and introduction to its major critical trends, with emphasis on groups of Caribbean Latinx, Mexican, and Central American origin. Representative works read in relation to such topics as relationship between Latina/Latino populations and U.S. cultural sphere, struggle for self-determination, experiences of exile and migration, border zones, enclaves and language, mestizaje and its impact on cultural production. P/NP or letter grading.

M105E. Studies in Chicana and/or Latina Literature. (5) (Formerly numbered Chicana and Chicano Studies M105E) (Same as English M105E) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Variable topics course to give students broad introduction to issues and themes in Chicanas and/or Latina literature. Topics include border, immigration, revolution, language, gender, sexuality, and diaspora, among others. May be repeated for credit with topic or instructor change. P/NP or letter grading.


CM110. Chicana Feminism. (4) (Formerly numbered Chicana and Chicano Studies CM110) (Same as Gender Studies CM110) 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/Chicana community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM214. P/NP or letter grading.

110. Chicana/Chicana and Latina/Latino Intellectual Traditions. (4) (Formerly numbered Chicana and Chicano Studies 110) 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 defenders of (national) identity, social reality, and struggles of liberation. Letter grading.

113. Day of Dead Ritual. (4) (Formerly numbered Chicana and Chicano Studies 113) Lecture, four hours; discussion, one hour (scheduled). Introduction to philosophical roots and evolution of traditional celebration of Day of Dead ritual. Contemplation of indigenous, Spanish, Mexican, Chicano, and other influences and manifestations of this ritual. Special attention to Nahahual 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. Examination of prehistoric and pre-Columbian ritual traditions through archaeological evidence. Analysis of origin and evolution of cultural traditions of Christmas, Easter, and Day of Dead, from pre-Hispanic to contemporary manifestations in Mexico and Central America. Exploration of how Aztec and Mayan astronomical rituals became foundation for Spanish domination and later globalization. Winter solstice became Christmas, spring equinox became celebration of Easter, and end of harvest became Todos los Santos. Examination of original purpose of sugar skull, piñata, pastorela shepherds’ drama, and religious dances as effective tools of colon- ization. Letter grading.

M114. Chicanos in Film/Video. (5) (Formerly numbered Chicana and Chicano Studies M114.) Same as Film and Television M117.) Lecture/sections, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socio-economic, cultural, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in film and video. Silences and gaps in Chicano-produced films about Mexican Americans produced between 1908 and 1980. Exploration of 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 works that critique 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. Preparation of understanding of Chicano/Mexican American musical aesthetics through examination of musical experiences of Latinos who have inhabited present geographical boundaries of U.S. P/NP or letter grading.

117. Chicana/Chicano Images in Mexican Film and Literature. (4) (Formerly numbered Chicana and Chicano Studies M117.) Lecture, four hours. Preparation: adequate understanding of Spanish-language films without English subtitles. Throughout its rich history, spanning more than 100 years, Mexican cinema has produced great variety of films that deal with Chicana/Chicano life. This course examines how Chicana and ChicanoStudies M117.) Lecture, four hours. Preparation: adequate understanding of Spanish-language films without English subtitles. Throughout its rich history, spanning more than 100 years, Mexican cinema has produced great variety of films that deal with Chicana/Chicano experience. Like its U.S. counterpart, Mexican cinematic discourse portrayal of Chicanas/Chicanos has produced a variety of stereotypes that limit visual representation of Chicanas/Chicanos. Examination of how stereotypes relate to social, cultural, and political issues. Letter grading.

M118. Student-Initiated Retention and Outreach Is- sues in Higher Education. (4) (Formerly numbered Chicana and Chicano Studies M118.) (Same as African American Studies M118, Asian American Studies M118, and American Indian Studies M118.) Lecture, two hours; discussion, two hours. Preparation: completion of institutional requirements for Chicana/Chicano Studies M117.) Lecture, four hours. Preparation: adequate understanding of Spanish-language films without English subtitles. Throughout its rich history, spanning more than 100 years, Mexican cinema has produced great variety of films that deal with Chicana/Chicano experience. Like its U.S. counterpart, Mexican cinematic discourse portrayal of Chicanas/Chicanos has produced a variety of stereotypes that limit visual representation of Chicanas/Chicanos. Examination of how stereotypes relate to social, cultural, and political issues. Letter grading.

M119. Chicano/Latino Community Formation: Crit- ical Perspectives and Oral Histories. (4) (Formerly numbered Chicana and Chicano Studies M119.) (Same as African American Studies M119, Asian American Studies M119, and American Indian Studies M119.) Lecture, two hours; discussion, two hours. Preparation: adequate understanding of Spanish-language films without English subtitles. Throughout its rich history, spanning more than 100 years, Mexican cinema has produced great variety of films that deal with Chicana/Chicano experience. Like its U.S. counterpart, Mexican cinematic discourse portrayal of Chicanas/Chicanos has produced a variety of stereotypes that limit visual representation of Chicanas/Chicanos. Examination of how stereotypes relate to social, cultural, and political issues. Letter grading.
types, and popular art forms through literature, film, video, music, mass media, and oral history. Letter grading.

M132. Border Consciousness. (4) (Formerly numbered Chicana and Chicano Studies M132.) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M132.) Lecture, four hours; discussion, two hours (when scheduled). Investigation through history, popular culture, and mass media of bilingual and cultural identities produced by geographical and cultural space between United States and Mexico, with focus on border consciousness as site of conflict and resistance. Letter grading.

M133. Chicana Lesbian Literature. (4) (Formerly numbered Chicana and Chicano Studies M133.) (Same as Gender Studies M133 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M133.) Lecture, four hours. Exploration of intersection of radical First and Third World feminist politics, lesbian sexuality, and its relationship to Chicana identity, representation of lesbianism in Chicana literature, meaning of familial in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/Chicana studies. Letter grading.

CM134XP. Engaging Immigrants and Their Families. (5) (Formerly numbered Chicana and Chicano Studies CM134SL.) (Same as Community Engagement and Social Change, Urban/Social Policy Studies CM134.) Lecture, two hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles—truly global city acting in part to broker, sustain, and incorporate immigration into daily life. Focus on social enterprise to explore multiple forms of interventions and impacts that take place in multiple communities across Los Angeles basin. Service learning experiences with organizations addressing immigration concerns. Letter grading.

CM135. Bilingual Writing Workshop. (4) (Formerly numbered Chicana and Chicano Studies CM135.) (Same as English Language and Literature, Chicana and Chicano Studies M135.) Lecture, four hours. Limited to juniors/seniors. Writing sample required; access to course web page mandatory; need not be bilingual. 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 and Chicano literature and Latinx critiques. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue, and magical realism as prevailing Chicano/a/Latino/a style. Some attention to process of manuscript preparation, publishing, and publication. Letter grading. Concurrently scheduled with CM135XP. Letter or P/NP grading.

M136. Censored Art on Trial. (4) (Formerly numbered Chicana and Chicano Studies M136.) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M136.) Lecture, four hours. Examination of censorship in visual arts, particularly art of queer Chicana and Chicanos. Focus on Chicana and Latina/Latinx artists such as Alma Lopez, Ester Hernandez, and Alex Donis. Other censored artists include feminist artist Yolanda Lopez, queer artist Robert Maplehose, and David Wojnarowicz, painter Christ Ofili, photographers Sally Mann, and Andres Serrano, printmaker Enrique Chagoya, muralist Noni Olabisi, writer Salman Rushdie, and four performance artists, Tim Samaras, Spike Buck, Fleck, and Holly Hughes—whose work was vetoed by chair of National Endowment for Arts (NEA) in 1990 after they had successfully passed through NEA’s peer review process and who came to be known as NEA Four. P/NP or letter grading.

M137. Maya Art and Architecture. (4) (Formerly numbered Chicana and Chicano Studies M137.) (Same as Art History CM139A.) Lecture, three hours. Requisite: course 217. Study of art of select Maya-speaking cultures of southern Mesoamerica from circa 2000 BC to Conquest, with particular emphasis on history and iconography. P/NP or letter grading.

138A. Space, Place, and Race. (4) (Formerly numbered Chicana and Chicano Studies 138A Seminar, four hours. Investigation of theories of spatial formation and their import for study of race and ethnicity in the U.S. Theories of space and place from interdisciplinary list of readings to investigate ways racial formation is embedded in property, maps, streets, and borders. Themes include introduction to spatial theory, settler colonialism, critical cartography, boundaries, and transgression. How space has shaped racial formation in multiracial places. Examination of ways space, place, and race operate in maps, built environment, and multimedia world. P/NP or letter grading.

138B. Barrio Suburbanism. (4) (Formerly numbered Chicana and Chicano Studies 138B.) Seminar, examination of ways Chicanas/Chicanos and Latinas/Latinos impact working- and middle-class suburbs to reshape geographies of urban and rural America. Building on urban studies of roles of public policy and planning in formation of barrio suburbs, how suburban forms operate in multiracial and regional context. Points of intersection and conflict to illuminate how Chicana and Chicano Studies 138B.) Seminar, examination of barrio suburbanism, in which Chicanas/Chicanos and Latinas/Latinos have impacted economic, social, and political contours of suburbs in Los Angeles metropolitan region. Major themes may include urban policy, planning history, immigration, inter-racial formation, and pursuit of racial democracy. P/NP or letter grading.

M139. Topics in Chicana and Chicano and/or Latina and Latino Literature and Visual Culture. (4) (Formerly Chicana and Chicano Studies M139.) (Same as English Language and Literature M191B.) Seminar, three or four hours. Enforced requisite: English Composition 3. Variable specialized study of Chicano/Latino themes and periods of Chicana and Latino literature. Topics may include literature, cinema, Chicana and Chicano visions of Los Angeles; immigration, migration, and exile; autobiography and historical, personal, and cultural memory; Chicano/a and/or Latinx identity and its relationship to Chicana identity, representation of Chicana identity, and its relationship to Chicana identity, representation of Chicana identity. Letter grading.

M140A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Formerly numbered Chicana and Chicano Studies M140A.) (Same as African American Studies M170A.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction media, making and presenting works of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make videos about memory in places where direct cues to remembering cannot be seen? Introduction to concepts from films and readings. Production assignments ranging from short documentaries to essay films as well as short film projects. Reading assignments will focus on Chicana and Chicano oral history and Chicana/Latina critical production in 1965 with Cherrie Moraga (1983), Helena Maria Viramontes (1984), and Gloria Anzaldúa (1987). Focus will be given to Chicana and Chicano contributions to Chicana and Chicano literary corpus. Letter grading.

M140B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) (Formerly numbered Chicana and Chicano Studies M140B.) (Same as African American Studies M170B.) Seminar, three hours. Enforced requisite: course M140A. Students complete 20- to 30-minute video projects about issues or experiences central to everyday lives of collectives of diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged non-fiction video and draw on their experiences from course M140A in writing voiceover, choreographing dances, designing public performances of西班牙, and recording everyday life. P/NP or letter grading.

C141. Chicana and Latin American Women’s Narrative. (4) (Formerly numbered Chicana and Chicano Studies C141.) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Seminar, examination of diverse cultural and racial roots of Chicana and Chicanos. Utilizing theoretical frameworks of mestizaje, Aztlán, indigenismo, La Raza Cósmica, and other Chicano/Chicana writers and intellectuals who have contributed to formation of Mexican national culture. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua, Mixteca, and Aztlan societies in relation to formation of Mexican-speak population. Analysis of Asian immigration to Mexico and California during national period, specifically examination of migration and adaptation experiences of Asian and Latin American immigrants. P/NP or letter grading.

C143B. Afro-Latina/o Experience(s) in U.S. (4) (Formerly numbered Chicana and Chicano Studies C143B.) Lecture, four hours. Course 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. impacts Afro-Latina/o identities and experiences of Afro-Latina/os from different and types of Afro-Latina/os that include Blaxicans, Nuyoricanos, Afro-Cubans, and others are taken into account. Discussion of themes that include feminism, politics, culture, and identities of Afro-Latina/o women in order to obtain comprehensive picture of Afro-Latina/o women in U.S. today and yesterday. P/NP or letter grading.

M144. Women’s Movement in Latin America. (4) (Formerly numbered Chicana and Chicano Studies M144.) (Same as Gender Studies M144 and Labor Studies M144.) Lecture, four hours. Course on women’s movements and feminism in Latin America and Caribbean to examine diverse social movements from locations from which women have launched political and gender struggles. Discussion of forms of feminism and women’s consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are concerned with race, sexuality, feminism, and human rights. Through comparative study of women’s movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women’s resistance to be given only on completion of course M140A. Statute of limitations applies. P/NP or letter grading.

M145A. Introduction to Chicano Literature: Literature to 1960. (4) (Formerly numbered Chicana and Chicano Studies M145A.) Lecture, four hours. Enforced requisite: course M140A. Study of Chicana and Chicano literature. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua, Mixteca, and Aztlan societies in relation to formation of Mexican-speak population. Some attention to process of manuscript preparation, publishing, and publication. Letter grading.

M145B. Literature of Chicana and Chicano Movement. (4) (Formerly numbered Chicana and Chicano Studies M145B.) (Same as Gender Studies M144 and Labor Studies M144.) Lecture, three hours. Requisite: Spanish 25 or 27. Introduction to texts representative of Chicano literary heritage. Sampling of genres, as well as 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 works are included and discussed. Reading and analysis of number of important scholarly and critical statements pertaining to characteristics and development of Chicano literary corpus. Letter grading.

M146. Chicano Narrative. (4) (Formerly numbered Chicana and Chicano Studies M146.) (Same as Spanish M155A.) Lecture, three hours. Enforced requisite: Spanish 25 or 27. Examination of literature of Chicana and Chico movement covering period from first manifestations of Chicano artistic production in 1960s with East L.A. Chronicles through rise of women’s writing, including works by Cherie Moraga (1983), Helena Maria (1985), and Sandra Cisneros (1991). P/NP or letter grading.

M146. Chicano Narrative. (4) (Formerly numbered Chicana and Chicano Studies M146.) (Same as Spanish M155A.) Lecture, three hours. Enforced requisite: Spanish 25 or 27. Introduction to major Chicano narrative genres—novel, romance, satire, autobiog- raphy, crónica/semblanza, Chicana detective novel, and Chicana solidarity fiction. Texts examined within story analysis, analysis of narrative structure, and how Chicanos have contributed to formation of Mexican national culture. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua, Mixteca, and Aztlan societies in relation to formation of Mexican-speak population. Analysis of Asian immigration to Mexico and California during national period, specifically examination of migration and adaptation experiences of Asian and Latin American immigrants. P/NP or letter grading.
people of Mexican descent in U.S. through 20th cen-
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4. (Formerly numbered Chicana and Chicano Studies 160.) Lecture, three hours. Survey course presenting (1) basic elements of Chi-
culture occurring both in U.S. and Mexico. Lectures, special-
sessions, reading assignments, written examination,
library and/or field research, and submission of paper. P/NP or letter grading.

160. Introduction to Chicano/Chicana Speech in American Society. (4) (Formerly numbered Chicana and Chicano Studies 160.) Lecture, four hours. Examination of speeches and other public discourse by Chicana and Chicano community activists associated with political and social movements, using field of rhetoric (study of public speech and persua-
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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 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.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) (Formerly numbered Chicana and Chicano Studies M195CE.) Same as African American and African Diasporic Studies M195CE, Asian 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 assistant coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct internships that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Research Apprenticeship in Chicana/o and Central American Studies. (2 to 4) (Formerly numbered Chicana and Chicano Studies 196.) Tutorial, three hours per week per unit. Requisite: courses 10A or 10B. Limited to juniors/seniors. Entry-level research apprenticeship for majors, nonmajors who seek guidance of faculty mentor. Participation in all aspects of research project, including library research, reading materials, and compilation of data, with scheduled meetings throughout term with faculty mentor for discussion of project. May not be applied toward departmental major or minor requirements. May be repeated under different contract; consult department. Individual contract required. P/NP or letter grading.

197. Individual Studies in Chicana/o and Central American Studies. (2 to 4) (Formerly numbered Chicana and Chicano Studies 197.) Tutorial, four hours. Requisites: courses 10A, 10B. Limited to juniors/seniors. Individual intensive study, with scheduled student meetings with instructor in order to address interests of student and to provide guidance for individual work. May be repeated for credit. Individual contract required. P/NP or letter grading.

197C. Individual Capstone Studies. (2) (Formerly numbered Chicana and Chicano Studies 197C.) Tutorial, one hour. Requisites: courses 1A or 1B and courses 10A or 10B, 101. Limited to departmental junior/senior majors. Guided study led by faculty supervisor. Instructor meets with student to help design culminating capstone project so it conforms to departmental capstone project guidelines. Must be taken in conjunction with one upper-division departmental course. May not be repeated for credit. Individual contract required. Letter grading.


199. Directed Research or Senior Project in Chicana/o and Central American Studies. (2 to 4) (Formerly numbered Chicana and Chicano Studies 199.) Tutorial, two hours; limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theoretical Paradigms in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 200.) Seminar, three hours. Limited to graduate students. Examination of several approaches and 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 genders 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. Examination and critical engagement with intersectional methodologies, or schools of thought, that employ intersectional methodologies as basis for social action research—Chicana/Chicano cultural studies, Chicana feminisms, 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 interesting 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.

M206. Politics of Hood. (4) (Formerly numbered Chicana and Chicano Studies 220A.) Seminar, three hours. Limited to graduate students. Examination of politics of the hood. Focus on intersections of race, class, gender, and sexuality. S/U or letter grading.

207. Racial Geographies. (4) (Formerly numbered Chicana and Chicano Studies 207.) Seminar, three hours. Interdisciplinary examination of racial geographies: historical and contemporary populations of Asian-Latinxs in the U.S.; mapmaking theologies that produce white supremacy and the political economy; mapping racial geographies of the Americas; and the politics of race, place, and space for agency in each context. Concurrently scheduled with course C107. Letter grading.


CM214. Chicana Feminism. (4) (Formerly numbered Chicana and Chicano Studies 214A and 214B.) Same as Gender Studies CM214A.) Lecture, four hours. Enforced requisite: course 10A or Gender Studies 10. Examination of transformative theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicana and Chicano artists by Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas. Theorized and analyzed as queers within Chicana/o studies. Feminism and the politics of race, place, and space. S/U or letter grading.

C215. Transnational Women’s Organizing in America. (4) (Formerly numbered Chicana and Chicano Studies 215.) Lecture, four hours. Enforced requisite: courses 10A and 214. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicana/o studies, public health, literature, public art, political science, etc.). Conceptualization of research proposal for use of service learning in one course (real or hypothetical) 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, four hours. Limited to graduate students. Exploration of queer of color genealogical thinking, and analysis of how these genealogies are used to understand the racial, spatial, and cultural formations of the Americas across 20th century. S/U or letter grading.

C212. Latina/Latino Families in U.S. (4) (Formerly numbered Chicana and Chicano Studies 212.) Lecture, four hours; discussion, one hour (when scheduled). Study of how intersections of race, class, and gender shape experiences of Latina/Latino families in U.S. and how these intersections also shape individual experiences within families. Examination of family, race, class, and gender as socially constructed forms. Reading of experiences of Mexican and Central American groups in U.S., with special emphasis on immigrants, and analysis of how race, class, and gender together play important roles in these experiences. Explores roles of structure and agency in each context. Concurrently scheduled with course C107. Letter grading.


CM214. Chicana Feminism. (4) (Formerly numbered Chicana and Chicano Studies 214A and 214B.) Same as Gender Studies CM214A.) Lecture, four hours. Enforced requisite: course 10A or Gender Studies 10. Examination of transformative theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicana and Chicano artists by Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas. Theorized and analyzed as queers within Chicana/o studies. Feminism and the politics of race, place, and space. S/U or letter grading.

C215. Transnational Women’s Organizing in America. (4) (Formerly numbered Chicana and Chicano Studies 215.) Lecture, four hours. Enforced requisite: courses 10A and 214. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicana/o studies, public health, literature, public art, political science, etc.). Conceptualization of research proposal for use of service learning in one course (real or hypothetical) 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, four hours. Limited to graduate students. Exploration of queer of color genealogical thinking, and analysis of how these genealogies are used to understand the racial, spatial, and cultural formations of the Americas across 20th century. S/U or letter grading.

C212. Latina/Latino Families in U.S. (4) (Formerly numbered Chicana and Chicano Studies 212.) Lecture, four hours; discussion, one hour (when scheduled). Study of how intersections of race, class, and gender shape experiences of Latina/Latino families in U.S. and how these intersections also shape individual experiences within families. Examination of family, race, class, and gender as socially constructed forms. Reading of experiences of Mexican and Central American groups in U.S., with special emphasis on immigrants, and analysis of how race, class, and gender together play important roles in these experiences. Explores roles of structure and agency in each context. Concurrently scheduled with course C107. Letter grading.
216. Product of Immigrant Illegality. (4) (Formerly numbered Chicana and Chicano Studies 216.) Seminar, three hours. Limited to graduate students. Based mostly on U.S., exploration of dynamic field of illegality studies. Study of history of immigration policies and enforcement practices, along with key conceptual and theoretical contributions to understand how immigrant 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.) Seminar, three hours. Limited to graduate students. Exploration of indigenerity, indigenerómexico, mestizaje, multilayered otherness, and racialized trajectories in Central America by critically engaging scholarship, census data, and oral histories to understand Central American communities in U.S. Analysis on their origins and how these racialized, gendered stratifications were naturalized through cultural practices. Engages cultural practices as strategies for survival for populations working against historical erasure especially enacted by nation-states. For example, when Blackle community is in national narrative of El Salvador, why problematize Costa Rica’s claim of racial equality, why and how do Garífuna communities assert their indigenerity and way meaning multiple practices of Blackle? Examines also of how these communities face genocide, ethnocide, feminicide, and strategies of racial passing and resistance.


220. U.S. Central Americans Making Art and Memory. (4) (Formerly numbered Chicana and Chicano Studies 220.) Seminar, three hours. Limited to graduate students. Memory is trope through which U.S. Central American writers, performance, visual, media, and public artists and activists communicate across social, national, and phenomenological borders. Through contemporary theories on memory and narrativizing, introduction to U.S. Central American writers, artists, cultural activists, and historical figures. Exploration of issues including immigration, race, class, sex, gender, globalization, immigration, and identity formations. Students have option to create art, media projects, and essays that interpret readings as these relate to their lives and/or U.S. Central American cultural production. S/U or letter grading.


225. Chicana/o and Central American Studies / 301

226. LatinX Literatures and Film: Theorizing Race, Genocide, and Diaspora. (4) Seminar, three hours. Focus on critical readings in Chicana/o and Latina/o literature and film. S/U or letter grading.


228. 20th Century Chicana(o) and Chicano Literature. (4) Seminar, three hours. Focus on critical readings in Chicana/o and Latina/o literature and film. S/U or letter grading.


236. LatinX Noir and City. (4) (Formerly numbered Chicana and Chicano Studies 236.) Seminar, three hours. Focus on critical readings in Chicana/o and Latina/o literature and film. S/U or letter grading.


302 / Civil and Environmental Engineering

C256. Understanding Whiteness in American History and Culture. (4) (Formerly numbered Chicana and Chicano Studies C256.) Lecture, three hours; discussion, one hour (when scheduled). Designed for graduate students. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. Concurrently scheduled with course C219. Letter grading.

M257. Chicana/o and Intersectional Marxism. (4) (Formerly numbered Chicana and Chicano Studies M257.) (Same as Public Policy M232.) Seminar, three hours. Examines Marxism, intersectionality, and early-Chicana/o Marxist influence. 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. Investigation of power of political humor, one social practice that constructs discriminatory hierarchies in institutional settings and mass media. With goal of developing set of principled methods to investigate its manifestations, reading of outstanding humanistic contributions across history of its social function and power, and development of classification of types and settings of political humor, and critical evaluation of recent social scientific models of its nature. S/U or letter grading.

259. Critical Discourse Analytic Methods. (4) (Formerly numbered Chicana and Chicano Studies 259.) Seminar, three hours. Limited to departmental graduate students. Two critical discourse analytic (CDA) methods taught to document language of public figures. Students develop skills in research design (conceptual metaphor CDA or discourse historical approach) to analyze actual public official’s own discourse surrounding one controversial issue. Empirical study of discourses that are based on independently developed research enterprises can be valuable tool for variety of graduate student research. S/U or letter grading.

C274. Language and Politics 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 in U.S. as context for understanding social, legal, and political constraints on bilingualism. Definitions and development of language policy and planning, history of general and education language policies, demographic profiling of language diversity, and current language and educational policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course C179. S/U or letter grading.

C276. Health in Chicana/Latino Population. (4) (Formerly numbered Chicana and Chicano Studies C276.) Lecture, four hours; discussion, one hour. Designed for graduate students. Examination of Chicana/o/Latinx health through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Binational review of health effects in Mexico, Mexico-US context. Concurrently scheduled with course CM106. Letter grading.

C277. Latino Social Policy. (4) (Formerly numbered Chicana and Chicano Studies C277.) Lecture, three hours; discussion, one hour (when scheduled). Examination of status, social, economic, and political context 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 M278.) Seminar, three hours. Highlighting roles of race, gender, sexuality, and citizenship status, exploration of how immigrant rights activists organize for legalization and against deportation, deportation, and border militarization. Letter grading.

279. Globalization and Transnationalism. (4) (Formerly numbered Chicana and Chicano Studies 279.) Seminar, three hours. Interdisciplinary seminar that integrates political-economic, historical-sociological, and anthropological-cultural perspectives to help students develop critical political-economical analysis of interplay between globalization (of flows of people, materials, ideas, information, and political-cultural influences) and localized transnational dynamics that together are giving meaning and constructing new social identities and strategies for struggle throughout world. S/U or letter grading.

M280. Urban Social Inequality. (4) (Formerly numbered Chicana and Chicano Studies 280.) Seminar, three hours. Examination of several key social and urban inequalities in U.S. Survey of three key contemporary issues of inequality primarily from sociology and urban planning/studies: income distribution (poverty), work and employment (labor), and neighborhoods (space/ geography). Through wide range of methods, approaches, and theoretical frameworks examined, exposure to key research on inequality. S/U or letter grading.

281. Central American Migration and Integration. (4) (Formerly numbered Chicana and Chicano Studies 281.) Seminar, three hours. Through empirical research cycle and engaged with relevant theoretical frameworks, students develop research questions based on migration experiences of Central American immigrants in greater Los Angeles area. Students conduct qualitative research, analyze original data, and write final papers that contextualize findings within existing social scientific literature. S/U or letter grading.

C282. Chicana/Chicano Legal History. (4) (Formerly numbered Chicana and Chicano Studies 282.) Seminar, three hours. Examination of several key social and urban inequalities in U.S. Survey of three key contemporary issues of inequality primarily from sociology and urban planning/studies: income distribution (poverty), work and employment (labor), and neighborhoods (space/ geography). Through wide range of methods, approaches, and theoretical frameworks examined, exposure to key research on inequality. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) (Formerly numbered Chicana and Chicano Studies 597.) Tutorial, to be arranged. Directed individual research and study in area related to Chicana/Chicano studies or subjects not offered as regular courses, arranged individually by student and instructor. May be repeated for maximum of 12 units. S/U or letter grading.

599. Research for PhD Dissertation. (4 to 12) (Formerly numbered Chicana and Chicano Studies 599.) Tutorial, to be arranged. Directed individual research and study in area related to Chicana/Chicano studies or subjects not offered as regular courses, arranged individually by student and instructor. May be repeated for maximum of 12 units. S/U or letter grading.

Civil and Environmental Engineering

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Department e-mail
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Jennifer A. Jay, PhD, Vice Chair
Jian Zhang, PhD, Vice Chair

Facility Roster

Professors
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Scott J. Brandenberg, PhD, PE
Mekonnen Gebremichael, PhD
Eric M.V. Hoek, PhD
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CIVIL ENGAGEMENT
See Community Engagement and Social Change

CIVIL AND ENVIRONMENTAL ENGINEERING

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Civil and Environmental Engineering

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Department e-mail
Graduate Study
At the graduate level, MS and PhD degree programs are offered in the areas of civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structural mechanics (including structural/earthquake engineering and structural mechanics). In these areas, research is being done on a variety of problems ranging from basic physics and mechanics problems to critical problems in earthquake engineering and in the development of new technologies for pollution control and water distribution and treatment.

Undergraduate Major

Civil Engineering BS
The civil engineering program is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major
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

Requirements
Preparation for the Major
Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, M20 (or Computer Science 31); 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 58K; 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 and Aerospace Engineering 105A, Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 101), 102, 103, C104 (or Materials Science and Engineering 104), 108, 110 (or C111), 120, 135A, 150, 153, 190, Mechanical and Aerospace Engineering 103; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least eight major field elective courses (32 units) from the lists below with at least two design courses, one of which must be a capstone design course and two of which must be laboratory courses. The laboratory courses must be taken from two distinct areas (both 120L and 129L may be taken to satisfy the two-laboratory requirement). Courses applied toward the required course requirement may not also be applied toward the major field elective requirement.

Civil Engineering Materials: Civil and Environmental Engineering C104, C105, C106, C111, C112; laboratory course: 108L.

Environmental Engineering: Civil and Environmental Engineering 154, 155, C159, 164, M165, M166; laboratory courses: 156A, 156B; capstone design courses: 157B, 157C.

Geotechnical Engineering: Civil and Environmental Engineering 125; laboratory courses: 120L, 129L; design courses: 121, 123 (capstone).


Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, C137, 142; laboratory courses: 108L, 135L, 140L; design courses: 141, 143, 144 (capstone), 147 (capstone), 148.

Transportation Engineering: Civil and Environmental Engineering 180, C181, C182, C185, C186.

Additional Elective Options: Courses selected from an approved list available in the Office of Academic and Student Affairs. For information on UC, school, and general education requirements, see the Samueli School section in College and Schools.

Undergraduate Minor
Civil and 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 engi-
neering 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.

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. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current interest taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


58XP. Climate Change, Water Quality, and Ecosystems. (5) (Formerly numbered SSRL.) 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 grading.

91. Statics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 31A, 31B, Physics 1A, 1B, 1C. Newtonian mechanics, vector representation, and resultant forces and moments. Free-body diagrams and equilibrium, internal loads and equilibrium in trusses, frames, and beams. Planar and nonplanar systems, distributed forces, determine and indeterminate force systems, shear and moment diagrams, and axial force diagrams. Letter grading.

97. Variable Topics in Civil and Environmental Engineering. (2 to 4) Seminar, two hours. Current topics and research methods in civil and environmental engineering. May be repeated for credit. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Dynamics of Particles and Bodies. (2) Lecture, two hours; discussion, two hours; outside study, two hours; outside study, four 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: Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Corequisites: course 108. 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; discussion, two hours; outside study, eight hours. Requisites: Chemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Provides fundamental understanding of modeling and numerical simulations for civil engineering materials. Lower-division course focused on practical applications and 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, seven hours. Requisites: Mathematics 32A, 32B. Concurrently scheduled with course M20. Introduction to fundamental concepts and applications of probability and statistics in civil engineering. Topics include basic probability concepts, random variables and analytical probability
distributions, functions of random variables, estimation, predicting parameters from observational data, regression, hypothesis testing, and Bayesian concepts. Letter grading.

C111. Machine Learning and Artificial Intelligence for Civil Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M20, Chemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Theoretical and practical introduction to artificial intelligence and machine learning techniques focusing on problem formulation and solving skills. By course end, students are expected to be able to independently run machine learning analysis. Concurrently scheduled with course C211. Letter grading.

120. Principles of Soil Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Soil as foundation for structures and as material of construction. Soil formation, classification, physical and mechanical properties, soil compaction, earth pressures, consolidation, and shear strength. Letter grading.

120L. Soil Mechanics Laboratory. (4) Formerly numbered C20L. Lecture, one hour; laboratory, six hours; outside study, five hours. Requisite or corequisite: course 120. Laboratory experiments to be performed by students to obtain soil parameters required for analysis and design problems. Soil classification, grain size distribution, Atterberg limits, specific gravity, compaction, expansion index, consolidation, shear strength determination. Design problems, laboratory report to be written. 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 design. Design of footings and piles, including stability investigations, including evaluation of soil properties for design. Letter grading.

123. Advanced Structural Design. (4) Formerly numbered 123L. Lecture, two hours; active learning, two hours; discussion, two hours; outside study, six hours. Requisite: course 121. Slope stability analysis, including limit equilibrium procedures, finite element method, seepage analysis, and advanced topics such as rapid drawdown, construction of embankments on soft soil, and seismic slope stability. Letter grading.

125. Fundamentals of Earthquake Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Overview of engineering seismology, including plate tectonics, faults, seismicity, and earthquake prediction. Letter grading.

128. Geohazards and Infrastructure Resilience. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120 or 125. Geohazards, evaluation of risks, and planning responses. Characterization of soil and rock units. Relationships developed between landforms, active, past, and ancient geologic processes, ground water and surface water, and properties of soil and rock associated with climate change, wildfires, landslides, volcanism, and earthquakes. Effects of geologic processes on civil infrastructures and risk assessment procedures to promote resilience. Concurrently scheduled with course C228. Letter grading.


130. Elementary Structural Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Analysis of stress and strain, phenomenological material behavior, extension, bending, and transverse shear stresses beams with general cross-sections, shear center, deflection of beams, torsion of beams, warping, column instability and failure. Concurrently scheduled with course C211. Letter grading.

130X. Technical Writing in Structural Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Computer Science 31), 108. Introduction to structural analysis; classification of structural elements; analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force method; introduction to displacement method and energy concepts. Letter grading.

135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Analysis of truss and frame systems; rotate systems and윙 Wing force method; matrix displacement method; analysis concepts based on theorem of virtual work; moment distribution. Letter grading.

135L. Structural and Finite Element Methods. (4) Same as Mechanical and Aerospace Engineering M168B. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 or Mechanical and Aerospace Engineering 156A or 166A. Introduction to basic concepts of the finite element methods (FEM) and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ritz approximation methods; shape functions and post-processor properties; isoparametric formulation of multidimensional heat flow and elasticity; numerical integration. Practical use of FEM software; geometric and analytical modeling; preprocessing and postprocessing techniques; term projects with computers. Letter grading.

135L. Structural Design and Testing Laboratory. (4) Lecture, two hours; laboratory, five hours; outside study, six hours. Requisites: courses M20, 135A. Limited enrollment. Computer-aided optimum design, construction, instrumentation, and use of computer programs for design and interpretation systems for comparison of experimental and theoretically predicted behavior. Letter grading.

137. Elementary Structural Dynamics. (4) Lecture, two hours; outside study, six hours. 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 re- response spectrum analysis approaches for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Concurrently scheduled with course C237. Letter grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite or corequisite: course 137L. Calibration of transducers and measurement equipment. Determination of natural frequencies and damping factors from free vibrations. Determination of natural frequencies, mode shapes, and damping factors from forced excitation. Letter grading.

140L. Structural Components and Systems Testing Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 142. Comparison of experimental results with analytical results in foundation engineering. Accuracies and limitations of calculation procedures used in structural design. Tests include quasi-static tests of structural elements (beams, columns) and systems (beam-column, beam-column) and dynamic tests of simple building systems. Quasi-static tests focus on assessment of element or subsystem stiffness, strength, and deformation capacity, whereas dynamic tests focus on assessment of periods, mode shapes, and damping. Development of communication skills through preparation of laboratory reports and oral presentations. Letter grading.

141. Steel Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Introduction to building codes. Fundamentals of load and resistance factor design of steel elements and design of tension members. Design of beams and beam columns. Simple connection design. Introduction to computer modeling and design process. Letter grading.


142L. Reinforced Concrete Structural Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: courses 135B, 142. Limited enrollment. Design considerations used for reinforced concrete beams and joints analyzed and evaluated using analysis and experiments. Links between theory, building codes, and experimental results. Students demonstrate accuracies and limitations of calculation procedures in design of reinforced concrete structures. Development of skills for written and oral presentations. Letter grading.

143. Design of Prestressed Concrete Structures. (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 prestressed concrete beams and joints. Design of post-tensioned beam using both hand calculations and commercially available computer program. Discussion of external post-tensioning, one- and two-way slab systems. Letter grading.

144. Structural Systems Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 141 or 142, and 190. Design course for civil engineering students, with focus on design and performance of complete building structural systems. Introduction to building codes, zoning, and finance. Advantages and limitations of different structural systems. Development of structural system design and computer model for architectural design. Letter grading.


148. Wood and Timber Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses 108, 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 detailing; and light-framed 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 31), Mechanical and Aerospace Engineering 103. Study of hydrologic cycle and relevant atmospheric processes, water resources, water pollution, precipitation formation, infiltration, evaporation, vegetation transpiration, groundwater flow, storm runoff, and flood processes. Letter grading.
151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 150, Mechanical and Aerospace Engineering 103. Recommended: courses 103, 110. Principles of hydraulics, flow of water in open channels and pressure conduits, reservoirs and dams, hydraulic machinery, hydrotechnical 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 management systems and potable and recycled water distribution systems, wastewater collection systems, and constructed 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.


154. Chemical Fate and Transport in Aquatic Environments. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 150, 151, 190. 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, bioaccumulation. Practical quantitative problems solved considering both reaction and transport of chemicals in environment. Letter grading.

155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 150, 153. Overview of fundamental science, engineering, and ecological principles to designing infrastructure for stormwater management. Students design green infrastructure based on current practices, perform engineering calculations to calculate performance, and think critically about the skills needed to design innovative or futuristic green infrastructures that would not only mitigate adverse impact of climate change, but also remain resilient under extreme weather conditions expected during climate change. Concurrently scheduled with course C259. Letter grading.

156. Sustainable Waste Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 153. Introduction to environmental engineering. Management of solid wastes, some of which are hazardous, is integral part of infrastructure development. Contributes to achievement of environmental sustainability. Study of all aspects of hazardous and municipal solid waste management technologies with particular emphasis on reuse of some solid waste to energy. Students are expected to integrate economic, environmental, regulatory, policy, and technical considerations into development of engineering designs of sustainable waste management. Students team designs sustainable remediation or waste management plans. Letter grading.

M165. Environmental Nanotechnology: Implications and Applications. (4) (Same as Engineering 151) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 151. Introduction to potential implications of nanotechnology to environmental systems as well as potential application of nanotechnology to environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and fate of nanomaterials in environmental systems, and (3) use of nanotechnology for water and energy production, plus environmental protection, monitoring, and remediation. Letter grading.

M166. Environmental Microbiology. (4) (Same as Environmental Health Sciences M166) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 151. Microbial diversity, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

M166L. Environmental Microbiology Laboratory. (2) (Same as Environmental Health Sciences M166L) Lecture, one hour; laboratory, two hours; outside study, two hours. Requisite: course 166 (may be taken concurrently). General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying environmental biotechnology.

170. Introduction to Construction Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to construction engineering theory, management, and techniques. Emphasis on exercises from technical texts and real project case studies. Discussion of building systems, building components, project delivery methods, document control, critical path method scheduling, labor management, quality management, estimating, sustainability, and cost controls. Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for Engineering and Environmental Engineering students and Public Affairs graduate students. General characteristics of transportation systems, including streets and highways, rail, transit, air, and waterways. Emphasis on system analysis, design, and operations. Components of roadway design, including horizontal and vertical alignment, cross sections, and pavements. Letter grading.

C181. Traffic Engineering Systems: Operations and Control. (Formerly numbered 181B) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Traffic operations including traffic data collection and analysis, safety and crash analysis, traffic control, flow theory, signalized intersection design and analysis, simulation modeling. Students gain understanding of basic traffic flow theory, traffic control and signal analysis and application, and to apply capacity analysis methods and simulation modeling for both highway and signalized intersections. Concurrently scheduled with course C281. Letter grading.

C182. Traffic Engineering Systems: Design, Materials, and Serviceability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Traffic operations including traffic data collection and analysis, safety and crash analysis, traffic control, flow theory, signalized intersection design and analysis, simulation modeling. Students gain understanding of basic traffic flow theory, traffic control and signal analysis and application, and to apply capacity analysis methods and simulation modeling for both highway and signalized intersections. Concurrently scheduled with course C282. Letter grading.

C185. Transportation Systems Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Transportation researchers and practitioners are motivated by desire to explain spatial interactions that resulted in movement of people or goods from place to place. Such interactions become more intricate as new technologies emerge. To explore and perceive these intricate interactions, understanding of essential nature of transport systems to analyze entire transportation 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 C285. Letter grading.

C186. Intelligent Transportation Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Introduction to basic elements of intelligent transportation systems (ITS), focusing on technological, systems, and institutional as-
spects. 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 C208. Letter grading.

188. Special Courses in Civil and Environmental Engineering. (4) Lecture, to be arranged; discussion, to be arranged; lab, 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; discussion; one hour; outside study, three hours. Requisite: one course from 121, 141, 142, 151, 155 (may be taken concurrently). Sustainability in design (e.g., LEED certification for building projects), professional licensure (PE, SE, and GE), project management (proposals, scheduling, and budgeting), business, public policy, injury prevention, and intermodal freight, public transportation applications. Topics include systems engineering processes, design, testing, and inspection for civil engineering materials. Largely focused on practical examples and applications. By course end, students are expected to be able to independently run simulation models and analyze results. Concurrently scheduled with course C106. Letter grading.


194. Research Group Seminars: Civil and Environmental Engineering. (2 to 8) Seminar, two to eight hours; outside study, six to 16 hours. Concurrently scheduled with course C104. Letter grading. Students are graduate students who are part of research group. Discussion of research methods and current literature in field or of research faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Civil and Environmental Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Counseling provided. 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, meteorology, transportation 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. (4) 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. Aspects of cement 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 everyday use 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 C105. Letter grading.


C211. Machine Learning and Artificial Intelligence for Civil Engineering. (4) Lecture; four hours; discussion, two hours; outside study, six hours. Theoretical and practical introduction to artificial intelligence and machine learning for civil engineering problems. Focus on practice and problem-solving skills. By course end, students are expected to be able to independently run machine learning analysis. Concurrently scheduled with course C111. Letter grading.


221. Advanced Foundation Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 121, 220. Stress distribution, Bearing capacity and settlement of shallow foundations, include pressuremeter and plate load tests, driven pile and drilled shaft foundations under vertical and lateral loading. Construction considerations. Letter grading.

222. Introduction to Soil Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Review of engineering problems involving soil dynamics. Fundamentals of theoretical soil dynamics: response of sliding block-on-plane to cyclic earthquake loads, linear and non-linear models of shear stress-absolute acceleration, motion initiation and isolation. Special emphasis on seismic compression, surface fault rupture, and response of structures to earthquakes. May be repeated for credit. Letter grading.

223. Advanced Geotechnical Design. (4) Formerly numbered 223C. Lecture, two hours; active learning, one hour; outside study, three hours. Requisite: course 120. Stress-strain-temperature relations. Analysis of principles of geotechnical design. Soil-structure interaction, wind and seismic loading, performance of high water content materials. Letter grading.

224. Advanced Geotechnical Design. (4) Formerly numbered 223C. Lecture, two hours; active learning, two hours; discussion, two hours; outside study, six hours. Requisite: course 220. Slope stability analysis, including soil mechanics methods, seepage analysis, and advanced topics such as rapid drawdown, construction of embankments on soft soil, and seismic slope stability. Letter grading.

235A. Dynamics of Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130 or 135B. Elastodynamics of beams and plates. Solution of structural problems using finite element methods. Letter grading.

253A. Physical and Chemical Processes for Water Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 135A, or equivalent. Review of momentum and mass transfer, chemical reaction engineering, coagulation and flocculation, granular filtrations, sedimentation, carbon adsorption, gas transfer, disinfection, oxidation and reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 31A, 31B, Physics 1A, 1B. Equilibrium and kinetic descriptions of chemical behavior of metals and inorganic ions in natural fresh/marine surface waters and in water treatment. Processes include acid-base chemistry and alkalinity (carbonate system), complexation, precipitation/dissolution, absorption oxidation/ reduction, ion exchange, removal of organics, and membrane processes. Letter grading.

256. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; channel routing, sequencing of water resource projects; and multiobjective planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

257. Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 253A. Phenomena and mechanisms of hydrodynamic dispersion, governing equations of mass transport in porous media, various analytical and numerical solutions, determination of dispersion parameters by laboratory and field experiments, theoretical and numerical modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

258. Hydrometeorology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 150. In-depth study of surface water hydrology, including description and interpretation of major topics such as rainfall and evaporation, soils and infiltration properties, runoff and snowmelt processes. Introduction to rainfall-runoff modeling, floods, and policy issues involved in water resource engineering and management. Letter grading.

259A. 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 description and interpretation of major topics such as rainfall and evaporation, soils and infiltration properties, runoff and snowmelt processes. Introduction to rainfall-runoff modeling, floods, and policy issues involved in water resource engineering and management. Letter grading.


259C. Hydrogeology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 250A. In-depth study of groundwater processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, exchange of mass, heat, and momentum between soil and vegetation surface and overlying atmosphere, and transport in turbulent boundary layer, basic remote sensing principles. Letter grading.

259D. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir management and operation; channel routing, sequencing of water resource projects; and multiobjective planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

25A. Rainfall-Runoff Modeling. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 251B. Introduction to hydrologic modeling concepts, including rainfall-runoff analysis, input data, uncertainty analysis, lumped and distributed modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

25B. Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 253A. Phenomena and mechanisms of hydrodynamic dispersion, governing equations of mass transport in porous media, various analytical and numerical solutions, determination of dispersion parameters by laboratory and field experiments, theoretical and numerical modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

25C. Remote Sensing with Hydrologic Applications. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 251C. Introduction to basic physical concepts of remote sensing as they relate to surface and atmospheric hydrologic processes. Applications include radiative transfer modeling and retrieval of hydrologically relevant parameters like topography, soil moisture, snow properties, vegetation, and precipitation. Letter grading.

25D. Hydrologic Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 251C. In-depth study of classical and Bayesian estimation theory for purposes of hydrologic data assimilation. Applications geared toward assimilating disparate observations into dynamic models of hydrologic systems. Letter grading.


255B. Biological Processes for Water and Waste Water Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 254A, 255A. Fundamentals of environmental engineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-film processes, aerobic and anaerobic digestion, sludge disposal, and biological nutrient removal. Letter grading.

C258. Coastal Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 151 and Mechanical and Aerospace Engineering 103. Covers coastal water levels (tides, climate), coastal morphology, wave run-up, beach face and groundwater, multiobjective water resources system planning, and optimization of water resource systems. Emphasis on practical and theoretical standpoints. Letter grading.

C259. Green Infrastructure. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 150, 153. Overview of fundamental science, engineering, and ecological principles to designing green infrastructure for stormwater management. Students design green infrastructure based on current practices, perform engineering calculations to calculate its performance, and develop critical thinking skills needed to design innovative or futuristic green infrastructure that would not only mitigate adverse impact of climate change, but also remain resilient under future climate change projections. Experiences are linked to climate change. Concurrently scheduled with course C159. Letter grading.

260. Advanced Topics in Hydrology and Water Resources. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. Current research topics in inverse problem of parameter estimation, experimental design, conjunctive use of surface and groundwater, multivariate water resources planning, and models of water resource systems. Topics may vary from term to term. Letter grading.

261. Colloidal Phenomena in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. In-depth coverage of advanced water treatment processes, including advanced oxidation processes, photolysis, electrochemical treatment methods, and membrane separations. These advanced topics are increasingly necessary to adequately treat both drinking and wastewater. Study of process 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. Requisites: course 255A. In-depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, emergent contaminants, and nanotechnology, surface chemistry, adsorption of pollutants on colloidal surfaces, transport of colloids in porous media, coagulation, and particle deposition. Consideration of applications to colloidal processes in aquatic environments. Letter grading.

M260A. Introduction to Atmospheric Chemistry. (4) (Same as Atmospheric and Oceanic Sciences M203A.) Lecture, three hours. Requisite for undergraduate: Chemistry 208. Principles of chemical kinetics, thermodynamics, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

M262B. Atmospheric Diffusion and Air Pollution. (4) (Same as Atmospheric and Ocean Sciences M232B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion and dispersion in urban and rural areas; source area pollution; dispersion in urban complexes; meteorological factors and air pollution potential; meteorological aspects of air pollution. S/U or letter grading.

263A. Physics of Environmental Transport. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and bubbles; small-scale dispersion and mixing; effect of oceanographically induced physical chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport at Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. Requisite: course 263A. In-depth treatment of transport and exchange phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, porous aggregates, and vegetative canopies. Discussion of these topics with environmental observations. Application to important environmental engineering problems. Letter grading.

266. Environmental Biotechnology. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisites: courses 153, 253A. Environmental biotechnology—concept and potential, biotechnology of pollution control, bioremediation, biomass conversion: composting, biogas and bioethanol production. Letter grading.

267. Environmental Applications of Geochemical Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Geochemical modeling is an important tool for predicting environmental impacts of contamination, and provides a predictive guide using geochemical software packages commonly found in environmental consulting industry to gain better understanding of governing geochemical principles. Students will learn a variety of modeling techniques to address contaminant speciation, transformation, and transport. Models will be used for groundwater and surface water contaminant transport. Letter grading.

268. Advanced Topics in Transport at Environmental Interfaces. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 263A. In-depth treatment of transport and exchange phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, porous aggregates, and vegetative canopies. Discussion of these topics with environmental observations. Application to important environmental engineering problems. Letter grading.

269. Transportation Systems Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 158. 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 optimize design such systems is important tool for predicting environmental impacts of contamination, and provides a predictive guide using geochemical software packages commonly found in environmental consulting industry to gain better understanding of governing geochemical principles. Students will learn a variety of modeling techniques to address contaminant speciation, transformation, and transport. Models will be used for groundwater and surface water contaminant transport. Letter grading.

270. Urban Transport 284. Seminar. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. May be repeated for credit. S/U grading.

271. Teaching Assistant Seminar. (2) Seminar, to be arranged. Limited to graduate civil engineering students. Seminar may be organized in advanced technology, field of specific interest, field trip, or special topic. May be repeated with topic change. Letter grading.

275. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or teaching assistant. Students prepare, teach, and supervise sections of classes, gain experience and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

279. Teaching Assistant Training Seminar. (2 to 16) Seminar, to be arranged. Limited to graduate civil engineering students. Seminar may be organized in advanced technology, field of specific interest, field trip, or special topic. May be repeated for credit. S/U grading.

280D. Teaching Assistant Training Seminar. (2) Seminar, to be arranged. Limited to graduate civil engineering students. Seminar may be organized in advanced technology, field of specific interest, field trip, or special topic. May be repeated for credit. S/U grading.
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 formal and balanced introduction to the historical and cultural experiences of the ancient Greeks and Romans. The program of study is structured, yet not rigid. Lower-division survey courses and requirements in elementary language study; ancient history, and classical art establish an essential background of knowledge, while electives encourage individual and specialized interests. The program offers a broad range of courses in the fields of language, literature, history, mythology, religion, philosophy, art, and archaeology. The major serves as excellent and rewarding preparation for a professional career in medicine, law, business, journalism, communications, or the arts.

Capstone Major
The Classical Civilization major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Classical Civilization major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major

Transfer Students
Transfer applicants to the Classical Civilization major with 30 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one classical Greek culture course, one Roman civilization course, and one course in Greek or Roman literature in translation, classical mythology, or classical archaeology.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

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.

Graduate Study

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.

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
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Requirements

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.

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).

Honors Program

Requirements

All honors students are required to take Classics 191 (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.

Policies

The Major

All other courses in the 190 series may be substituted only by petition.

Honors Program

Admission

The honors program is open to Classical Civilization majors with a cumulative grade-point
average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental 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 or better.

Greek BA
Capstone Major
The Greek major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Greek major has the following learning outcomes:
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Greek major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

The Major
Required: (1) Seven upper-division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program
Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policies
The Major
Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser.

Honors Program
Admission
The honors program is open to Greek majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A.

Greek and Latin BA
Capstone Major
The Greek and Latin major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Greek and Latin major has the following learning outcomes:
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Greek and Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20 and Latin 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

The Major
Required: (1) Eight upper-division Greek and Latin courses (of which at least four must be in each language), including Greek 110 or Latin 110; Greek and/or Latin 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program
Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They 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.
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.

Policies

The Major
Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser

Honors Program
Admission
The honors program is open to Greek and Latin majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental 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. or better.

Latin BA

Capstone Major
The Latin major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Latin major has the following learning outcomes:

- Demonstrate specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field

- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Latin 1, 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 1, 2, 3.

The Major
Required: (1) Seven upper-division Latin courses, including course 110; Latin 187 and 199 may be applied only by petition; (2) three upper-division courses in classical civilizations and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program
Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policies

The Major
Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser.

Honors Program
Admission
The honors program is open to Latin majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A.

Undergraduate Minors

Classical Civilization Minor
The Classical Civilization minor is designed to recognize a serious commitment to the study of the cultures and civilizations of ancient Greece and Rome. Lower-division survey courses in historical studies, classical literature, mythology, and film provide an essential introduction to the imagination and power of the ancient world. Students may fulfill upper-division requirements from a variety of courses in classical civilization and related fields, including political and social history, literature, art and archaeology, religion, mythology, philosophy, and cultural studies of ethnicity, gender, and sexuality in antiquity.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Courses (15 units): Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B, 60.

Required Upper-Division Courses (20 units): Five upper-division courses in classical civilization offered by the department.

Policies

One course in a related field may be substituted with approval of the faculty undergraduate adviser. Classics 191 may be applied, but all other courses in the 190 series may be substituted only by petition.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Greek Language and Culture Minor
The Greek Language and Culture minor is designed to recognize a serious commitment to the study of ancient or modern Greek. After completing either lower-division ancient Greek (Greek 2, 3, 20) or modern Greek (Greek 9A, 9B, 9C), students select departmental upper-division courses centered on Greek texts, culture, and contexts. Students may take reading courses in ancient Greek prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context, and/or they may choose to take courses in Byzantine or modern Greek or courses in translation that ground their language training within the broader scope of Hellenic studies.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Courses (12 or 14 units): Greek 2, 3, 20, or 9A, 9B, and 9C, or equivalent. Greek 16 may be substituted for Greek 2 and 3.

Required Upper-Division Courses (20 units): Two courses selected from Greek 100 through 187; three additional upper-division courses in Greek or classical civilization.

Policies
Courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Latin Language and Culture Minor
The Latin Language and Culture minor is designed to recognize a serious commitment to the study of the Latin language. After a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper-division reading courses in classical (and/or late antique and medieval) Latin prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context and/or they may choose to take courses in translation that ground their language training within the broader scope of Roman studies and classical reception.

Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, 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): Two courses selected from Latin 100 through 187; three additional upper-division courses in Latin or classical civilization.

Policies
Courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors
Classics MA, CPhil, PhD

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

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.

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 illustrated with images of art, architecture, and material culture. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Discovering Romans. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Roman life and culture from time of city’s legendary foundations to end of classical antiquity. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

30. Classical Mythology. (5) Lecture, three hours; discussion, one hour. Introduction to myths and legends of ancient Greece and/or Rome, role of those stories in their societies, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Requirements: English Composition 3. Exploration in detail and 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. Requirements: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

42. Cinema and Ancient World. (5) Lecture/screenings, five hours; discussion, one hour. Use of popular culture and cinema to introduce students to ancient Greek and/or Roman culture; focus at discretion of instructor. P/NP or letter grading.

47. Medical Terminology: Origins, Nature, and Practice. (5) Lecture, three hours. Introduction to specialized vocabulary of health sciences, which is rooted in Greek and 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 recasting this terminology, and also to serve as mechanism for connecting health/medical professions to humanistic origins. P/NP or letter grading.

48. Ancient Greek and Roman Medicine. (5) Lecture, three hours; discussion, one hour. Introduction to Greek and Roman medicine in its intellectual and cultural context. Examination of construction of concepts such as health, disease, physician, man, woman, cause, and difference. Readings from Greek literature
Upper-Division Courses

M114A. History of Ancient Mediterranean World. (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/N/P or letter grading.

M114B. History and Monuments of Rome: Field Studies. (Same as History M112E.) Fieldwork, five hours. Enforced corequisite: course M114A. Examination of historical, art, and monumental 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 monuments. Renaissance and modern eras explored in their historical context. Part of UCLA Summer Travel Program. P/N/P or letter grading.

M121. Ancient and Medieval Political Theory. (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, Machiavel, Montesquieu, and More. More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion, P/N/P or letter grading.

M124. Modern Themes in Ancient Political Thought. (Same as Political Science M119A.) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include influence cases of modern reception of classical antiquity. P/N/P or letter grading.

M125. Invention of Democracy. (Same as Political Science M112B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greek as political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle by demos, people, aware of its excellence and proud of its power, kratos. It became only regime capable of including all members of community while disregarding wealth, status, and diverging interest. Examination of history and theory of ancient democracy. P/N/P or letter grading.

130. Race, Ethnicity, Identity in Greco-Roman World. (4) Lecture, two and one half hours. Examines the concepts of race and ethnicity in the ancient world. Topics include the construction of identity in ancient cultures, the influence of ancient cultures on modern notions of race and ethnicity, and the construction of identity in the modern world. P/N/P 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 literacy, centering on questions of genre and rhetoric. Encourages appreciation for how historians interpret sources and asks for other genres (epic, biography, oratory). Readings may draw widely from various authors, including Herodotus, Thucydides, Livy, Tacitus, and others. P/N/P or letter grading.

137. Ancient Lives: Art of Biography. (4) Lecture, three hours. Study of ancient biographies, focusing on how biographers have used biographical works to construct the identities of their subjects. P/N/P or letter grading.

138. Ancient Letters. (4) Lecture, three hours. Requisite: course 10 or 20. Study of prose and poetic letter forms in ancient Greek and Roman worlds. Broad survey of letters as literary compositions and historical documents or more focused analysis of one particular period, author, or theme. P/N/P or letter grading.

140. Topics in History of Greek Literature. (4) Lecture, three hours. Requisite: course 10 or 40W. Examination of specific issues in history of Greek literature as defined by the instructor. May be repeated for credit with topic change. P/N/P or letter grading.

141. Topics in History of Latin Literature. (4) Lecture, three hours. Requisite: course 20 or 41W. Examination of specific issues 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/N/P or letter grading.

142. Ancient Epic. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40W, or 41W. Homer's Iliad and Odyssey, Vergil's Aeneid, and Ovid's Metamorphoses, studied in translation. P/N/P or letter grading.

143A. Ancient Tragedy. (4) Lecture, three hours. Requisite: course 10 or 40W. Survey of tragedy from 5th-century Athens through later antiquity. P/N/P 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/N/P or letter grading.

144. Topical Studies in Ancient Culture. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40W, or 41W. Investigation of one problem in ancient culture that involves discussion of both Greek and Roman material. May be repeated for credit with topic change. P/N/P 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 context of texts, historical, literary, and philosophical issues. P/N/P or letter grading.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B.) Lecture, three hours. Requisite: one course from M145A, Philosophy 1, 100A, M101B, or M102. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works by Stoics, Skeptics, Neoplatonists, etc. P/N/P 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/N/P 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/N/P 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 Aristotle. P/N/P or letter grading.

148. Early Greek Medicine and Thought. (3) Lecture, three hours. Requisite: one course from History 100A, 100B, 101B, or 110C. Examination of early Greek medical thought and practice in context of Greek intellectual and cultural developments. Readings from medical, philosophical, and historical texts. P/N/P or letter grading.

M149. 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 relationships they have with larger social body, with particular focus on marginalized or minority groups such as women, noncitizens (resident aliens and provincials), slaves, children, elderly, and disabled. Examination of ways these groups have contributed to or detracted from understanding of ancient society as whole. May be repeated for credit with topic change. P/N/P or letter grading.
150A. Female in Greek 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. (4) Lecture, three hours; discussion, one hour. Requisite: course 10 or 20. Exploration of art of influencing natural course of events by occult means and persistence and reform. 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 on- and off-campus. Concurrently scheduled with course C251E. P/NP or letter grading.

152A. Ancient City: Greek World. (4) Lecture, three hours. Enforced requisite: course 10 or 51A or Art History 20. Exploration of art of influencing natural course of events by occult means and persistence and reform. Letter grading.

152B. Ancient City: Roman World. (4) Lecture, three hours. Enforced requisite: course 20 or 51B or Art History 20. Exploration of art of influencing natural course of events by occult means and persistence and reform. Letter grading.

154A. Roman World History. (4) Lecture, three hours. Preparation: course 20 or History 1A. Range of interdisciplinary approaches to study of Rome and its Empire from circa 2000 to 1000 BC. P/NP or letter grading.

155A. Minoan Art and Archaeology. (4) (Same as Art History M111A.) 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.

155B. Mycenaean Art and Archaeology. (4) (Same as Art History M112A.) 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.

155C. Archaic 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 800 through 490 BC. P/NP or letter grading.

155D. Classical Greek Art and Archaeology. (4) (Same as Art History M112D.) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. 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.

155F. Etruscan Art and Archaeology. (4) (Same as Art History M112F.) Lecture, three hours. Requisite: course 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.

155G. Greek and Roman Architecture. (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.

155H. 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.


155J. Greco-Roman Architecture. (4) (Same as Art History M115A.) Lecture, three hours. Requisite: course 10 or 20. Study of theory and practice of Greco-Roman architecture, especially Italy, throughout the Roman Empire. P/NP or letter grading.


155L. Late Antique Art and Architecture. (4) (Same as Art History M115A.) Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. P/NP or letter grading.


161. Women's History in Ancient Mediterranean. (4) Lecture, three hours. Preparation: one course from 20 or History 1A. Range of interdisciplinary approaches to study of women and gender in the ancient Mediterranean world, including topics such as war, slavery, and sex trafficking. May be repeated for credit with topic change. P/NP or letter grading.

162. Reception of Ancient Myth. (4) Lecture, three hours. Preparation: one course from 20 or History 1A. Range of interdisciplinary approaches to study of women and gender in the ancient Mediterranean world, including topics such as war, slavery, and sex trafficking. May be repeated for credit with topic change. P/NP or letter grading.

163. Ovid and Consequences. (4) Lecture, three hours. Preparation: one course from 20 or History 1A. Preparation: one course from 20 or History 1A. Study of Ovid's Metamorphoses and persistence and extent of Roman poet's influence on subsequent literature as seen through the classical and postclassical traditions of Europe. Text begins with discussing the influence of Ovid's text before turning to poem's classical, medieval, Renaissance, and modern imitators, from Apuleius to Shakespeare to Picasso and beyond. P/NP or letter grading.


165. Ancient Athletics. (4) Lecture, three hours. Requisite: course 10 or History 1A. Study of ancient Greek and Roman athletics and their connections with religion, politics, literature, and art. P/NP or letter grading.

166A. Greek Religion. (4) Lecture, three hours. Requisite: course 10 or 30. Study of religion of ancient Greeks. P/NP or letter grading.

166B. Roman Religion. (4) Lecture, three hours. Requisite: course 10 or 30. Study of religion of ancient Romans. P/NP or letter grading.

167. Magic in Ancient World. (4) (Same as Ancient Near East M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 10 or 20. Exploration of art of influencing natural course of events by occult means as practiced in ancient world at large. Coverage of beliefs in supernatural forces, rites aimed at controlling these forces effectively, and character and social roles of ritual experts in various cultures of ancient world. Source material includes types of magical spells, literary texts about magic and magicians, and artifacts such as amulets and ritual implements. P/NP or letter grading.

168. Comparative Mythology. (4) Lecture, three hours. Requisite: course 30, or GE Clusters 30A, 30B, and 30CW. Religious, mythical, and/or historical traditions with emphasis on both ancient and modern traditions with each other traditions from around the world. P/NP or letter grading.


189HC. Honors Contracts. (1) Tutorial, three hours. May be repeated for credit. P/NP grading.

190. Research Colloquia in Classics. (1) Seminar, one hour. 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 repeated for credit. P/NP grading.

191. Capstone Seminar: Classics. (5) Seminar, three hours. Requisites: courses 10, 20, at least four upper-division major courses. Limited to declared junior/senior major. Open only with consent of instructor. Topical research seminar on important themes, periods, genres of ancient Greek and Roman World. Intended to provide students with opportunity for serious engagement with research in discipline under close faculty supervision. Readings, discussions, oral presentations, and final research paper or project. May be repeated for credit. Letter grading.
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–BB–BC. Elementary Modern Greek. (4–4–4) Lecture, three hours. Course 8A is enforced requisite to BB, which is enforced requisite to BC. Introductory modern Greek section 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 literary competence in order to read modern Greek scholarly texts. No prior knowledge of modern Greek is required. Covers grammatical concepts and forms necessary to comprehend written academic Greek. Students gain familiarity with various academic genres in Greek (among others, articles, chapters, reviews, lecture transcripts). Emphasis on grammar and reading strategies that enable location, selection, and comprehension of texts central to research needs. Students are familiarized with major stylistic features of contemporary academic modern Greek, and 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–BB–BC. 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 communicative competence analyzing oral and nonverbal language and culture. Engagement with modern Greek is required. Covers grammatical concepts and forms necessary to comprehend written academic Greek. Students gain familiarity with various academic genres in Greek (among others, articles, chapters, reviews, lecture transcripts). Emphasis on grammar and reading strategies that enable location, selection, and comprehension of texts central to research needs. Students are familiarized with major stylistic features of contemporary academic modern Greek, and consolidate their competence through reading, translating, and writing activities. Familiarization with basic aspects of modern Greek life and culture. P/NP or letter grading.

15. Elementary Modern Greek. (12) Lecture, 18 to 21 hours. Eight-week intensive introduction to Greek language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

16. Intensive First-Year Greek. (12) Lecture, 19 hours. Eight-week intensive introduction to Greek language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Intermediate Greek. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3 or 16. Formal review of Greek grammar and syntax and development of skills in reading original texts of Greek prose. Readings selected to introduce literature and culture of ancient Greece. P/NP or letter grading.

28. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of ancient Athens, combining evidence of literature, inscriptions, and actual remains. S/U or letter grading.

29. Greek and Latin Manuscripts. Seminar, three hours. Seminar/workshop in various pedagogical issues and methods of approaching classical scholarship, including textual criticism, literary interpretation and theory, hermeneutics, interdisciplinary studies, and computer applications to classics. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with topic change. S/U or letter grading.

30. Topics in Greek and Roman Culture and Literature. (2 or 4) Seminar, three hours. Interdisciplinary study on topics of current interest in Greek and Roman culture and/or literature. May be repeated for credit with topic change. S/U or letter grading.

25A. Seminar: Classical Archaeology—Aegean Bronze Age. (2 or 4) Seminar, three hours. S/U or letter grading.

25B. Seminar: Classical Archaeology—Greco-Roman Architecture. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman architecture. S/U (2-unit course) or letter (4-unit course) grading.

25C. Seminar: Classical Archaeology—Greco-Roman Sculpture. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman painting. May be repeated for credit with consent of instructor. S/U or letter grading.

C251E. 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 settings scheduled with course C151E. S/U or letter grading.

252. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of ancient Athens, combining 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. S/U or letter grading.

277. Graduate Course on Classical Literature. (2) Seminar, three hours. Survey of basic methods of and approaches to classical scholarship, including textual criticism, literary interpretation and theory, hermeneutics, interdisciplinary studies, and computer applications to classics. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with topic change. S/U grading.

288. Literary Theory. (2 or 4) Discussion, three hours. Designed for graduate students. Introduction to chief texts in literary theory and criticism for readers of classical literature, with application to classical texts. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation for 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 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 classical civilization, Greek, and/or Latin undergraduate courses; readings and group discussions in topography related to teaching in field of classics. May be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation for service as UCL; 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 arrangement with various campus departments. 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.

ings, 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. 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 20. Introduction to developing skills of reading longer, continuous passages of original Greek prose and/or poetry texts, with attention to literary and cultural background. Course is normally requisite to other courses in Greek 100 series. May be repeated for credit with change of assigned readings and with consent of instructor. P/NP or letter grading.


103. Aeschylus. (4) Lecture, three hours. Requisite: course 100. P/N or letter grading.

104. Sophocles. (4) Lecture, three hours. Requisite: course 100. P/N 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/N 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/N or letter grading.

111. Herodotus. (4) Lecture, three hours. Requisite: course 100. P/N or letter grading.

112. Thucydides. (4) Lecture, three hours. Requisite: course 100. P/N 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/N or letter grading.

117. Epic Prose. (4) Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.

120A. Advanced Thucydides. (2 or 4) Lecture, three hours. Course 202A is requisite to 202B. S/U (2-unit course) or letter (4-unit course) grading.

121A-121B. 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.

121A-121B. 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.

123. Greek Historiography. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

124. Demosthenes. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

125. Early Greek Orators. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

127A-127B. 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.

128. Menander. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.


Graduate Courses

200A-200B-200C. History of Greek Literature. (4–4–4) Lecture, three hours. Lectures on history of Greek literature, supplemented by reading of Greek texts in original language. Each course may be taken independently for credit. S/U or letter grading.

201A-201B. Homeric Epic. (4) 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. Homeric Hymns. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

205. Aeschylus. (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. Greek Dialects and Historical Grammar. (2 or 4 each) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

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.

210A-210B. Herodotus. (2 or 4 each) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

211A-211B. Thucydides. (2 or 4 each) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

212A-212B. Greek Dialects and Historical Grammar. (2 or 4 each) Seminar, three hours. 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. S/U (2-unit course) or letter (4-unit course) grading.

217A-217B. Greek Lyric Poetry. (2 or 4 each) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

219A. Archaic Lyric. Study of lyric poetry of Archaic period, both choral and monodic, with elegiac and iambic included. 217B. Pindar and Bacchylides. Study of choral odes of Pindar and Bacchylides, with special attention to conventions of epigram.

220. Greek Novel. (2 or 4) Seminar, three hours. Study of Greek romance and its place in Greek literature. Two texts (Chariton: Chaereas and Callirhoe 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) Lecture, three hours. Course 223A is requisite to 223B. S/U (2-unit course) or letter (4-unit course) grading.

227A-227B. Greek Lyric Poetry. (2 or 4 each) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

234. Post-Aristotelian Philosophy. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

266. Imperial Greek Literature. (2 or 4) Seminar, three hours. Study of Greek literature of Roman Empire with attention to various authors, genres, and themes. S/U or letter grading.

289. Greek Translations. (2) Seminar, three hours. Preparation: graduate-level knowledge of Greek. Practice in translation of previously unseen texts from various Greek 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 with topic change. S/U grading.


241. Greek Epigraphy. (2 or 4) Seminar, three hours. Survey of Greek historical inscriptions, chiefly Attic. S/U (2-unit course) or letter (4-unit course) grading.


243. Mycenaean Greek. (2 or 4) Seminar, three hours. Subjects include language, and interpretation 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 Palaeography. (2 or 4) Seminar, three hours. Preparation: reading knowledge of Greek. Reading of Greek manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.
Latin

Lower-Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. P/N or letter grading.

2. Elementary Latin for Graduate Students. (No credit) Lecture, eight hours. Concurrently scheduled with course 14. No grading.


4. Latin I. Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3 or 16. Formal review of Latin grammar and syntax and development of skills in reading original texts of Latin prose. Readings selected to introduce literature and culture of ancient Rome. P/N or letter grading.

5. First Year Latin, (12) Lecture, 19 hours. Eight-week intensive introduction to Latin language equivalent to courses 1, 2, and 3. Offered in summer only. P/N or letter grading.

6. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/N grading.

7. Lower-Division Courses

- 101. Plautus. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of selected satirical texts, with an emphasis on development of ability to read and appreciate expression and character in ancient Latin comedy.
- 105A. Beginning Vergil: Selections from Aeneid I-VI. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of Vergil’s Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings and consent of instructor. P/N or letter grading.
- 105B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 105A. Reading and discussion of Vergil’s Aeneid, especially Books VI-X. May be repeated for credit with change in readings and consent of instructor. P/N or letter grading.
- 106. Catullus. (4) Lecture, three hours. Requisite: course 100. Readings from author(s) of Latin literature, including Horace, Persius, and Juvenal, with an emphasis on development of skill in reading and analysis of selected texts. P/N or letter grading.
- 109. Roman Satire. (4) Lecture, three hours. Requisite: course 100. Readings from author(s) of Roman satire, including Horace, Persius, and Juvenal, with an emphasis on development of skill in reading and analysis of selected texts. P/N or letter grading.
- 111. Livy. (4) Lecture, three hours. Requisite: course 100. P/N or letter grading.
- 117. Sallust. (4) Lecture, three hours. Requisite: course 100. P/N or letter grading.
- 119A. Readings in Roman Prose. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman prose authors. P/N or letter grading.
- 119B. Readings in Roman Poetry. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman poetry authors. May be repeated for credit with change in topics. P/N or letter grading.

Upper-Division Courses

1. Intermediate Latin: Introduction to Reading Latin (4) Lecture, three hours. Enforced requisite: course 20 (may be taken concurrently). Introduction to developing skills of reading longer, continuous pas-sages of original Latin prose and/or poetry texts, with attention to literary and cultural background. Course is requisite to advanced reading courses. May be repeated for credit with change of assigned readings and with consent of instructor. P/N or letter grading.

2. Ancient Greek Language, Literature, and/or Culture. (2 to 8) Tutorial, to be arranged. S/U grading.

3. Tutorial, (su) grading. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Introductions 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. P/N or letter grading.

4. Directed Research 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.

5. Directed Research in Latin. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Course work required. May be repeated for credit. Individual contract required. P/N or letter grading.

6. Directed Research in Latin. (2 to 4) Tutorial, two hours. Limited to seniors. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Varro, Cato, Statius, Silvius 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.

7. Seminar: Catullus. (2 or 4) Lecture, three hours. Detailed consideration of entire Catullan corpus. S/U (2-unit course) or letter (4-unit course) grading.

8. Seminar: Vergil’s Eclogues. (2 or 4) Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

9. Seminar: Vergil’s Eclogues. (2 or 4) Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

10. Seminar: Vergil’s Eclogues. (2 or 4) Seminar, three hours. Course 204A is requisite to 204B. Close reading of Vergil’s text; careful evaluation of in-
fluential criticism on poem, much of it recent; examination of work's place within tradition of rural poetry. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

207. Roman Comedy. (2 or 4) Seminar, three hours. Survey of Roman comedy. S/U (2-unit course) or letter (4-unit course) grading.

208. Ovid. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

209. Seminar: Roman Satire. (2 or 4) Seminar, three hours. Detailed study of one individual satirist, with attention to his position in development of satirical genre in Roman literature. Choice of author varies from year to year. Close study of text, of characteristics of writer as social critic and artist, and of contemporary literary and social environment. S/U (2-unit course) or letter (4-unit course) grading.


211A-211B-211C. Seminars: Roman Historians. (2 or 4 each) Seminar, three hours. Study of considerable portions of writings of following historians. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 211A: Sallust; 211B: Livy; 211C: Tacitus.

214. Ancient Biography: Roman Lives. (2 or 4) Seminar, three hours. Study of biography in ancient Rome. Literary survey or focused readings on lives of 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. Works such as Petronius' Satyricon and Aulus Metamorphoses: study of literary problems. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

216. Roman Rhetoric. (2 or 4) Seminar, three hours. Close study of rhetorical text (e.g., Rhetorica ad Herennium, Cicero's de Oratore, Seneca's Controversiae or Suasoriae, Quintilian's Institutio), with attention to its place in rhetorical tradition. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

218. Cicero's Orations. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

218A. Cicero's Philosophical Works. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

219. Roman Stoicism. (2 or 4) Seminar. Three hours. S/U (2-unit course) or letter (4-unit course) grading.

223. Lucrèce. (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 work of one or several poets 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.

225. Late Latin Poetry. (2 or 4) Seminar, three hours. Close study, with attention to literary and historical background, of work of one or several poets 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.

226. 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 Tacitus and fall of Roman Empire. May be repeated for credit with change in author. S/U or letter grading.

240. History of Latin Language. (2 or 4) Lecture, three hours. Development of Latin from earliest monuments until its emergence in Romance languages. S/U or letter grading.


243. Seminar: Latin Palaeography. (2 or 4) Seminar, three hours. Courses in development of book hand in Latin manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

245. Neo-Latin. (2 or 4) Seminar, three hours. Preparations: at least two upper-division Latin courses. Requisite: course 100. Survey of texts by one or more authors from Renaissance to present, written on related topics. S/U or letter grading.

250. Topical Studies of 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. 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.

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 as part of academic socialities for which their work is fundamental. 21CW. Special Topics. Seminar, three hours. Enforced requisite: course 21B. Examination of cross-section of classical and modern theoretical debates that shape them. Satisfies Writing II requirement.


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 23B, 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-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (5–5–5) Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW, Limited to first-year freshmen. Letter grading.

23A-23B. Lecture, four hours; discussion, two hours. An introduction to the historical development and evolution of performing arts, aesthetic theories and practices, and political, social, and cultural impacts on performance. Topics include examines fin de siècle to jazz age to modernism. Enforced requisite: 23CW. Special Topics. Seminar, three hours. Enforced requisite: course 23B, 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.


24A-24B. Lecture, three hours; discussion, two hours. Comprehensive exploration of the historical evolution of popular East Asian urban culture and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 24CW. Special Topics. Seminar, three hours. Enforced requisite: course 24B. Topics include law/history, gender, race, and workplace. Satisfies Writing II requirement.


25A-25B. Lecture, three hours; discussion, two hours. In-depth examination of issues in historical and contemporary East Asian urban 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. Lecture, three hours; discussion, two hours. Introduction to social determinants of health, focusing on cultural, historical, socioeconomic, public health, medical, political, and artistic context of poverty in modern Latin America and on different local, national, and regional responses to this issue. Exploration of historical trends and debates that have shaped and continue to define issues related to poverty and health in region. 26B. Lecture, three hours; discussion, two hours. Enforced requisite: course 26A. Examination of health equity in equities and possible solutions to promote improved health outcomes and so to determinants of health illustrated through examples of current programs and policies. Major areas for addressing health inequity in...
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, biology, 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 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 II requirement.

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.

COMMUNICATION

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Kerri L. Johnson, PhD, Chair
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John H. Schumann, PhD

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Francis F. Steen, PhD
Anne S. Warraymont, PhD

Assistant Professors
Tao Gao, PhD
Jungseok Joo, PhD
Georgia C. Kernell, PhD

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Steven M. Peterson, PhD
Michael W. Suman, PhD
Paul Von Blum, JD, Emeritus

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Gabriel B. Jones, PhD
James A. Jusko, JD
Raffi L. Kassabian, JD
Karyn K. Kiczenski, PhD
Nazo L. Koulloukian, JD
James S. Newton, BA

Adjunct Assistant Professors
Abigail H. Goldman, MS
Barry A. Sanders, JD

Overview

The Department of Communication is an interdisciplinary group of scholars interested in communication at many levels of analysis, including digital and mass media, political communication, and interpersonal social interaction.

Undergraduate Major

Communication BA

The major in Communication is an interdisciplinary curriculum leading to a Bachelor of Arts (BA) degree. It seeks to provide students with comprehensive knowledge of the nature of human communication at multiple levels of analysis. The major coursework includes content from the natural and social sciences, as well as the humanities. Four areas of focus are offered: communication technology and digital systems, interpersonal communication, mass communication and media institutions, and political and legal communication.

Learning Outcomes

The Communication major has the following learning outcomes:

• Demonstrated mastery of substantive areas of the field, including mass communication and media institutions, interpersonal communication, communication technology and digital systems, and political and legal communication
• Placement of particular communication events or examples in the context of broader patterns of human activity
• Critical evaluation of arguments based on evidence
• Design and implementation of original research projects
• Completion, using acquired knowledge and skills, of a project that demonstrates core competencies in the field
• Active participation in learning-in-practice opportunities
• Evaluation and critique of oral presentations
• Demonstrated mastery of conceptualization, formulation, and oral presentation of the student’s own ideas

Entry to the Major

Admission

Enrollment in the major is limited. Admission to the major is by application to the committee in charge. Applications are available on the de-
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.

Required Core Courses: Communication 100, 150.

Required Area Courses: A total of eight courses from the following four areas, including at least one core course in each area:

Communication Technology and Digital Systems—Core courses: Communication 129, 131, 151, 154, 155, 156, 158; elective courses: Communication 122, 157, 188C, 191C.


Political and Legal Communication—Core courses: Communication 101, 160, 162, 168, 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 198A, 198B, and 198C, and (4) produce a complete satisfactory honors thesis (as determined by a recent thesis advisor 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, or Computer Science 31 and 32, and (3) completing four courses (at least one of which must be in computation) from Communication 122, 129, 131, 151, 154, 155, 156, 158, Program in Computing 10C, 16A, 16B, 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 or Computer Science 32 (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.

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 requirement: 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 analyze, compose and delivery of speeches in accordance with specific rhetorical concepts. Improvement of ability to analyze, organize, and critically think about communicative messages while becoming better equipped to articulate ideas. P/NP or letter grading.

1A. Public Speaking for Nonnative Speakers. [4] Lecture, four hours. Designed for nonnative speakers of English to increase fluency and vocabulary while improving presentation skills, language usage, reasoning, style, and delivery. Conversation and pronunciation practice. Focus on theory 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. Designed for students’ fluency in conversational English while increasing their awareness of American popular culture. Primer on American-style colloquial English and nuances of contemporary customs and values offered through guided immersion in popular cinema. Offered in summer only. P/NP or letter grading.

10. Introduction to Communication. [5] Lecture, four hours; discussion, one hour. Introduction to study of interpersonal and mass communication using interdisciplinary approach. Exploration of basic methods and theoretical perspectives that social scientists and others use to study interpersonal and mass communication, and basic concepts used to describe and explain that communication. Historical overview of each major mass media. Study of significant current topical issues related to means of communication that reach large numbers of people. Letter grading.

19. Fiat Lux Freshman Seminars. [1] Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA, P/NP grading.

M72A-M72B-M72CW. Sex from Biology to Gendered Society. [6–6–6] Same as Clusters M72A-M72B-M72CW, 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, biology, 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 reassignment. Satisfies Writing Intensive. Satisfies Writing II. Letter grading.

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 II. Letter grading.

88. Sophomore Seminars: Communication Studies. [4] Seminar, three hours. Limited to maximum of 20 lower-division students. Readings and discussions designed to introduce students to current research in the discipline. Culminating project may be required. P/NP or letter grading.

99. 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 for 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 independent 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 course related to this research. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Communication Science. (4) Lecture, three hours. Requisite: course 10 or Linguistics 1 or Sociology 10. Examination of fundamental theories in communication sciences. Exploration of theoretical and methodological approaches that bridge major areas of current interdisciplinary communication research. P/NP or letter grading.


103A-103B. Forensics. (4-4) Lecture, three hours. Participation in on-campus and intercollegiate forensics activities, including exposure to fundamentals of competitive forensic events. Students practice public address, interpretation of literature, debate, oratory, and extemporaneous speaking and engage in independent research. P/NP or letter grading.

103A. Basic preparation; 103B. Advanced practicum in speech.

104. Analysis and Briefing. (4) Lecture, three hours. Intensive exposure to 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 digital media, we encounter ongoing struggles for freedom and identity, and they shape society around world. Although conspiracy theories are generally understood, they find particularly fertile ground in Middle East and in U.S. Definition, identification, and analysis of conspiracy theories as they appear in the media. Western democracies and Middle Eastern states are often portrayed as having deep divisions, as opposed to others, and self-disclosure. P/NP or letter grading.

106. Reporting America. (4) Lecture, three hours. Examination of current issues in evolutionary communication research. Topics include design of communication systems, human signaling, social communication, and speech production and perception. P/NP or letter grading.

112. Current Issues in Vocal Communication. (4) Seminar, three hours. Requisite: course 118 or 120 or 138. Examination of current issues in evolutionary communication research. Topics include design of communication systems, human signaling, social communication, and speech production and perception. P/NP or letter grading.

M113. Nonverbal Communication and Body Language. (4) (Same as Psychology M137B.) Lecture, three hours. Examination of various forms of nonverbal communication convey information to perceivers, with focus on both production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinematics), with strong emphasis on body language. Readings from a variety of related fields. P/NP or letter grading.

114. Understanding Relationships. (4) Lecture, four hours. Explanation of types of communication that occur in close relationships, especially romantic relationships. In-depth coverage of variety of relationship topics, including intimacy, stages of intimate relationships, why we choose to get involved with some people as opposed to others, flirting, and self-disclosure. P/NP or letter grading.

115. Interpersonal Dynamics. (4) Lecture, three hours. Survey of recent scientific approaches to dyadic communication and relationships. Survey of research on interpersonal communication, with focus on both controlled and automatic processes. Consideration of both controlled and automatic processes. Discussion of roles of motives, goals, and affective variables. P/NP or letter grading.

M126R. Evolution of Language. (4) (Same as Anthropology CM126R.) Lecture, one hour (when scheduled). Recommended preparation: Anthropology 1 or 4 or Linguistics 1. Designed for seniors and juniors. How did human capacity for language evolve? Examination of origin of human language from biological, comparative, developmental, social and computational perspectives. Topics include evolutionary theory, linguistic structure, gesture and speech, animal communication, language learning, language disorders, and computational models of language emergence. P/NP or letter grading.

M125. Talk and Social Institutions. (4) (Same as Sociology CM125.) Lecture, four hours; discussion, one hour. Designed for seniors/junior. Practices of communication and social interaction in number of major institutional settings in contemporary society. Setting varies from class, workplace, family, or group. P/NP or letter grading.

126. Evolution of Interpersonal Communication. (4) Lecture, four hours. Examination of current issues in interpersonal communication and perspectives of evolutionary psychology and biology. Topics include coevolution of signaler and receiver adaptations, nonverbal communication, courtship behavior, miscommunication between sexes, implied language use, and deception.

Letter grading.
M127. Animal Communication. (4) Same as Anthropology M128Q. Lecture, three hours. Designed for Anthropology and Communication 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.

128. Play and Entertainment. (4) Lecture, three hours. Entertainment is significant component of both interpersonal and mass communication. Examination of evolutionary mechanisms underlying, and social dimensions 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 computer games that are becoming increasingly popular and technically sophisticated, with focus on what people learn from games, how they learn it, and whether learning is potentially useful. Letter grading.

130. Science of Language. (4) Lecture, three hours. Introduction to scientific foundations of psycholinguistics, and connections to applied issues in communication. Survey of various scientific methods, and how they are applied to key issues in language and communication. Discussion of how we can measure meanings of words, complexity of sentences, and study of how these are processed (and produced) during communication. Some hands-on exercises, including learning some scientific tools that can be used both in future research and in field. Letter grading.

131. Computer Models of Communicators. (4) Lecture, three hours. Introduction to using computerized methods to model communication processes. Survey of various computational methods, and how to apply these in hands-on exercises. Exercises here are small-scale simulations of communicators on personal computer. Covers computer models for individual communicators, dyads, groups, and collective (mass) systems. Letter grading.

132. Multimedia Production. (4) Lecture, four hours. Critical evaluation of television programming and scholarly research of new developments in television. Application of research findings by students to real-world contexts in course discussions, papers, and presentations. Letter grading.

133. Decoding Media Strategies. (4) Lecture, three hours. Today's mass media are thriving business, central part of cultural identity, and vital component of democracy. How do mass media function, and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of entertainment and mass culture, practice of propaganda, and ideological and political impact of media ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

136. Media Portrayals of Gays and Lesbians. (4) Lecture, three hours. How mass media have portrayed gays and lesbians in movies, and why. Media's depiction, portrayal, and handling of homosexuality, with particular focus on how gays and lesbians have been negatively stereotyped in the past, and tepidly, and often not portrayed at all. Examination not only of how 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 designed to influence human conduct; analysis of structure of persuasive discourse; integration of theoretical materials from relevant disciplines of humanities and social sciences. Letter grading.

141. Films of Persuasion: Social and Political Advocacy in Mass Society. (4) Lecture, three hours; discussion, one hour. Films often provide commentary about public issues and provide pattern of media communication to large audiences about history, society, and politics. Critical evaluation of these works to understand power and limitations of films as social persuasion. Letter grading.

142. Rhetoric of Popular Culture. (4) Lecture, three hours. Rhetorical approach to study of U.S. popular culture. Examination, both at theoretical level and through specific case studies, of ways in which popular cultural texts perform rhetorically to influence political and social struggles shaping everyday life. How do particular artifacts or communicative texts constitute source for (re)negotiation of cultural meanings as well as greater understanding of ways language functions in everyday life? Three hours. Same as Sociology M144A-M144B. Lecture, three hours; discussion, one hour. P/NP or letter grading. Letter grading.

144A. Introduction to various structures emphasized in organization of conversations, such as turn-taking, action sequencing, and repair. Requisite: course M144A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations. Letter grading.

145. Situation Comedy and American Culture. (4) Lecture, three hours. Historical analysis of sitcom genre from its beginning in late 1940s to present. Investigation of how sitcoms have influenced American life and culture and how American life and culture have influenced sitcoms. Exploration of issues 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 as basis for images selected for recognition by caregivers in entertainment, advertising, and informational communication. Letter grading.

147. Sociology of Mass Communication. (4) (Same as Sociology M117E.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.

148. Integrated Marketing Communications. (4) Lecture, three hours. Examination of key concepts and methods in marketing communications in both traditional and digital media. Development and execution of communications 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.

149. 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 graduate students. Emphasis on how different patterns of media ownership and distribution of mass media content influences different groups in society. P/NP or letter grading.


153. Introduction to Data Science. (4) Lecture, three hours. Requisite: one course from Computer Science 31, 32, Program in Computing 10A, 10B with grade of C+ or better, or equivalent. Examination of how large-scale data can be used to systematically measure various aspects of human affairs. Study of computational and statistical methods which enable scalable analysis and cost reduction. Students learn to interpret and understand research findings and implement applications from published work on practical issues in data science, such as privacy and model biases. 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 Media. (4) Lecture, four hours. Internet’s digital core was designed for military communication. Subject matter was gradually 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 A or A-. 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 new domains such as consumer behavior, transportation, medicine, advertisement, military operations, and social media, and aiding our decision making, planning, reasoning, and forecasting. Review of origin and principles of development of artificial intelligence and its recent breakthroughs through many applications with special emphasis on its usages of media industry, e.g., personalization, recommendation, and targeted advertising. Covers its technical possibilities as well as controversies such as ethical and moral issues of AI, privacy concerns in data collection, and fair use of AI in general. Prior knowledge in mathematics, statistics, or computer science not required. Discussion of elementary technical details as course unfolds. Letter grading.

156. Social Networking. (4) Lecture, three hours. Investigation of how new online social networks have facilitated interpersonal interactions for knowledge sharing, romance, business, politics, and entertainment. Critical investigation of current popular social networking websites (e.g., Facebook, Twitter, YouTube) through social network analysis and historical social science research methods. P/NP or letter grading.

157. Celebrity, Fame, and Social Media. (4) Lecture, three hours. Analysis of how following personal lives of media-created celebrities impacts self-esteem, connectedness, and personal relationships from cultural studies and social sciences perspectives, and how celebrities cultivate celebrity for financial gain. Topics include celebrity ideologies, news sharing, public relations, and impact of social media on fan support, image construction, and damage control. P/NP or letter grading.

158. Revolutions in Communication Technology. (4) Lecture, three hours. Study of dynamic processes of innovation in history of communication from its earliest expressions to information age. Examination of developments in speech, images, and writing. Investigation of 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 communication in political sphere. Discussion of contemporary and historical communications within established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

162. Presidential Communication. (4) Lecture, three hours. Examination of historical evolution of presidential communication environment, resources, and strat-
egies, as well as how presidential campaign communication has evolved over time and implications for how presidents govern. Letter grading.


164. Entertainment Law. (4) Lecture, three hours. Various aspects of entertainment and music industry, with primary focus on business, legal, and free speech-related concepts. P/NP or letter grading.

M165. Agitational Communication. (Same as Labor Studies M175.) Lecture, four hours; discussion, one hour (when scheduled). Theory of agitation; agitational communication and practice. How points of view and imagery in communication and information gathering. From birth of public diplomacy to present, examining its role and impact in American foreign policy. P/NP or letter grading.


168. Communication and Media Law. (4) Lecture, three hours. Focus on sample of most important intersections between law and communication: copyright, trademarks, freedom of speech, privacy, secrecy, surveillance. Law and communication have been intertwined since introduction of book censorship and licensing in late 18th century and blasphemy laws before that. That relationship has grown increasingly complex in time in response to technological changes in communication media, evolution of modern state forms, and changing expectations about freedom of and responsibility for both communication and information gathering. From music piracy, knock-offs of famous brands, ubiquitous presence of closed-circuit television, facial recognition software, global tracking systems, biosensors, and data mining practices, intersection between communication, media, and law has become part of our life, on scale and to extent that would have been unthinkable few years ago. Letter grading.

M169. Critical Vision: History of Art as Social and Political Commentary. (Same as Honors Colloquium M179.) Seminar, three hours. Study of tradition of visual arts (painting, graphic art, photography, sculpture) as vehicles for social and political commentary. P/NP or letter grading.

170. Legal Communication. (4) Lecture, three hours; discussion, one hour. Review of Fifth Amendment privilege against self-incrimination, including analysis of Miranda warnings, police interrogation procedures, coerced confessions, and why innocent people confess. Examination of jury behavior, reliability of eyewitness testimony, and fair trials. Mock trial presentation. Intimate expression and right to define one's own concept of existence and meaning, using examples of evolving rules on same-sex marriage, abortion, and right to die. Use and misuse of grand juries in police misconduct cases. Includes: Eric Brown’s Michael Garner, and Breonna Taylor cases. Questions of judicial activism, legal precedent, and standards of review. Letter grading.

171. Theories of Freedom of Speech and Press. (4) Lecture, three hours. Exploration of relationship between freedoms of speech and press and values of liberty, self-realization, self-government, truth, dignity, respect, justice, equality, association, and community. Study of antecedents of these values examined in connection with issues such as obscenity, defamation, access to media, and control of commercial, corporate, and government speech. P/NP or letter grading.

173. Affect and Emotion in Political Communication. (4) Lecture, three hours. Exploration of relationship between freedom of speech and press and values of liberty, self-realization, self-government, truth, dignity, respect, justice, equality, association, and community. Study of antecedents of these values examined in connection with issues such as obscenity, defamation, access to media, and control of commercial, corporate, and government speech. P/NP or letter grading.


183. Media, Ethics, and Digital Age: Case-Study Approach. (4) Lecture, three hours. To publish or not to publish? Seminar will examine ethical and policy issues arising from interaction of media institutions (print, film, broadcasting, and new technologies) and societal institutions (Congress, federal agencies, courts, Presidency, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

188. Careers in Communication. (1) Seminar, two hours. Rigorous study of communication theories, research methods, and applications prepares students to be competitive 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 professional workplace. Consultation of successful industry professionals from variety of fields to understand how they leveraged their education to excel within their organizations. P/NP or letter grading.

188A. Variable Topics in Mass Communication and Media Institutions. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188B. Variable Topics in Interpersonal Communication. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188C. Variable Topics in Communication Technology and Digital Systems. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

188D. Variable Topics in Political and Legal Communication. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188E. Variable Topics: Practicum. (4) Lecture, three hours. Practicum lectures on selected topics in communication. Reading, writing, discussion, and development of culminating project may be repeated for credit with topic change. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepartation 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 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. Designated as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.
Graduate Courses

200. Theories in Communication Science. (4) Seminar, three hours. Exploration of topics in psychology and methodological approaches that bridge major areas of current interdisciplinary communication science research. S/U or letter grading.

205. Professional Pathways. (1) Seminar, one hour. Exploration of career pathways. Each meeting focuses on one possible career path and features a guest speaker who works in that particular industry. S/U grading.

210. Communication Speaker Series. (2) Seminar, 90 minutes. Designed for graduate students in social and natural sciences. Discussion of research issues and preliminary findings. Opportunities for feedback on current and proposed research activity. Assigned readings included. May be repeated for credit. S/U grading.

220. Research Methods in Communication Science. (4) Seminar, three hours. Study of how communication science research is conducted with focus on quantitative methodology. Students gain understanding of tools used 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 underlie multiple aspects of communication, including its social 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 observation research, and testing theories of human interactive behavior using computational models. S/U or letter grading.

237. Prediction and Conjecture in Communicative Behavior. (4) Seminar, three hours. Exploration of nascent field of communication power. Study of historical evolution of presidential communication. Covers topics including normative roles of parties in modern democracies, reasons why parties exist, party competition, electoral systems, voting behavior, and degree to which America's political opinions and actions are influenced by that content. Specific topics include history of news media, recent media trends, theories of attitude formation and change, role of media in shaping public perceptions of political worlds, 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.

251. Presidential Communication. (4) Seminar, three hours. Examination of one vital source of presidential power: president's unannounced communication power. Study of historical evolution of president's communication environment, resources, and strategies. Exploration of how presidential campaign communication has evolved over time, and implications of this evolution for how presidents govern. S/U or letter grading.

253. Affective Political Communication. (4) Seminar, three hours. Examination of how political parties use affective political communication to shape public perceptions of political parties across countries, party identification, voting, and internal party dynamics. S/U or letter grading.

255. Political Parties and Strategic Partisan Communication. (4) Seminar, three hours. Examination of how political parties work to shape public perceptions of political parties around world. Covers topics including normative roles of parties in modern democracies, reasons why parties exist, party competition, electoral systems, voting behavior, and degree to which America's political opinions and actions are influenced by that content. Specific topics include history of news media, recent media trends, theories of attitude formation and change, role of media in shaping public perceptions of political worlds, 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.

270. Computational Communication. (4) Seminar, three hours. Examination of new computational methods developed and applied for communication research along with
massive data sets and computing infrastructure enable large-scale quantitative analyses on human communication and activities at scale. Introduction to state-of-the-art methods in computational social science and how they can be applied in communication research. S/U or letter grading.


272. Communicative Minds: Philosophy, Experiment, and Model. (4) Seminar, three hours. Recommended requisite: course 270. Recommended prepreparation: experience with Python (or equivalent programming language). Examination of cognitive mechanisms underlying human communication with focus on models of communication and cognition. S/U or letter grading.

273. Big Data Analysis with Machine Learning. (4) Seminar, three hours. Preparation: familiarity with coding (Python or R) and basic statistical analysis. Introduction to advanced machine learning methods that can apply to large-scale datasets in text, audio, and visual data modalities. Students learn how to develop, train, and validate machine learning models and apply methods to their own research. S/U or letter grading.

275. 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.

290. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to Communication graduate students. Directed study on variable topics in consultation with faculty member. S/U or letter grading.

295. Preparation for PhD Qualifying Examination. (2 to 12) Tutorial, to be arranged. Limited to Communication PhD graduate students. Reading and preparation for PhD qualifying examination. Mandatory and supplemental reading lists approved by student advisory committee. May be repeated for credit as necessary with consent of adviser. S/U grading.

297. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. Limited to Communication PhD graduate students. 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.

396. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to Communication graduate students. Directed study on variable topics in consultation with faculty member. S/U or letter grading.

397. Preparation for PhD Qualifying Examination. (2 to 12) Tutorial, to be arranged. Limited to Communication PhD graduate students. Reading and preparation for PhD qualifying examination. Mandatory and supplemental reading lists approved by student advisory committee. May be repeated for credit as necessary with consent of adviser. S/U grading.

399. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. Limited to Communication PhD graduate students. May be repeated for credit. S/U grading.

COMMUNITY ENGAGEMENT AND SOCIAL CHANGE

Interdisciplinary Minor
College of Letters and Science
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Community Engagement and Social Change
310-825-7867
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 minor is an interdisciplinary program that creates a unique opportunity for students to examine social inequality and strategies for social change through sustained community engagement in Los Angeles and beyond. It complements any major.

Students have a lower-division or upper-division option for their gateway community-engaged course in the minor, then choose two additional community-engaged learning experiences, a strategy for social change course, and an upper-division elective.

Capstone

Students complete a two-quarter capstone course series in which they learn about different forms of community-engaged research that is conducted with and to benefit a community partner. Working in collaboration with a non-profit organization, students prepare a community-engaged research proposal and then complete a research paper. Integrated into the capstone course, students develop an e-Portfolio that conveys their journey through the minor.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, submit a completed application, and submit a written statement describing how civic engagement relates to their academic interests or career goals. Digital applications are available.

The Minor


Required Capstone (8 units): Community Engagement and Social Change 191AX, 191BX, with grades of B or better.

Policies

Students may petition to apply one lower-division community-engaged course, one upper-division community-engaged course, or one upper-division elective not listed above toward
the minor. Transfer students may petition to have a community-engaged course taken at a prior institution 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 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Capstone**

Community Engagement and Social Change 191AX and 191BX must be completed 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 that are a part of the Astin Scholars program may have the courses Community Engagement and Social Change M180A, M190B, and M190C satisfy the capstone requirement. Students may petition to have a capstone sequence 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 major capstone requirements align 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 research as length and scope of the final paper or project based on guidelines developed by the faculty committee.

**Community Engagement and Social Change Lower-Division Courses**

10. Introduction to Engaged Scholarship. (2) (Formerly numbered Civic Engagement 10.) Seminar, two hours. Limited to students participating in preapproved UCLA civic engagement programs. Introduction to history, research, and philosophy of general University/community partnerships, as well as specific opportunities for active engagement by undergraduate students at UCLA. Offered in summer only. P/NP grading.

18. Bruin Leaders: Model for Social Change. (1) (Formerly numbered Civic Engagement 18.) Lecture, two hours; fieldwork, one hour. Introduction to leadership development and civic engagement through community service. Based on nonhierarchical mode of leadership developed by UCLA Graduate School of Education and Information Studies. Topics include diversity, organizational skills and team-building development, and personal growth and community service goals. Participation in first-week orientation session required. Course Schedule of Classes for topics to be offered in specific term. May not be repeated for credit. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

50XP. Engaging Los Angeles. (3) (Formerly numbered Community Engagement and Social Change 50SL.) Lecture, two hours; discussion, two hours. Community-engaged learning course with focus on diverse communities of Los Angeles. Analysis of general shared history of Los Angeles. Comparing or contrasting experiences of different racial/ethnic groups. Engagement in meaningful work on campus to reflect on assets, injustices, and inequities that have shaped experiences of new and immigrant communities. Analysis of Los Angeles in which residents coexist and interact while managing tensions and social justice issues inherent in minority/majority city. Letter grading.

89. Honors Seminars. (1) (Formerly numbered Civic Engagement 89.) 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) (Formerly numbered Civic Engagement 89HC.) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 10 units for undergraduates or 15 units for seniors. Honors content noted on transcript. Letter grading.

95A-95B. Introduction to Community-Based Internships. (2–4) (Formerly numbered Civic Engagement 95A-95B.) Tutorial, one hour; fieldwork, four hours (course 95A) and 10 hours (course 95B). Course 95A is not requisite to 95B. Introduction to community-based work for students in specialized UCLA scholarship programs. Platform for preplanned, organized, structured, and supervised off-campus experiences with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations that meet criteria for undergraduate internships and established by Center for Community Engagement. Individual contract with supervising faculty member required. P/NP or letter grading.

95CE. Introduction to Community-Based Internship. (2) (Formerly numbered Civic Engagement 95CE.) Tutorial, one hour; fieldwork, four hours. Introduction to community-based work for third-term freshmen/sophomore students who have not completed 60 units. Enrolled, organized, structured, and supervised off-campus experiences with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations that meet criteria for undergraduate internships and established by Center for Community Engagement. May be repeated once for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

96A. Leadership and Social Change. (2) Seminar, two hours. Exploration of different modes of leadership and consideration of how effective leadership can bring about positive social change. We live in a 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 environments. If it is possible to improve one’s own leadership and effect change in face of deep structural inequality, criteria 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, drawing on inspirations from social activism, politics, religion, law, philanthropy, and education. Students are encouraged to find mentors and colleagues to join in friendship. Three to four day experiential learning opportunities in leadership development off campus. P/NP grading.

96B. Organizational Analysis and Workforce Readiness. (2) Seminar, two hours. Requisite: course 96A. Analytic training on how to study institutions and organizations. Students identify, contact, and interview practitioners from work area of interest. Site visits to various working environments in Los Angeles area. Analytics training on how to study institutions and organizations and prepare research briefs on organizations/institutions to be visited. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours. Enrolled in unit. Entry level for underdervision 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; Graduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

100XP. Perspectives on Civic Engagement for Social Justice. (5) (Formerly numbered 100SL.) Seminar, three hours. Community-based learning course. Examination of theories and concepts of civic engagement 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 organizations 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 participated in USACG Community Service Commission Alternative Spring Break immediately prior to Spring Quarter. Discussion of role of higher education initiatives 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 Research. (4) (Formerly numbered 105SL.) Seminar, three hours; fieldwork, 10 hours. Limited to juniors/seniors. Service learning course for graduate students and community partners through which students learn theory and practice of community-based program evaluation of nonprofit organizations in Los Angeles by research teams. Offered in summer only. Letter grading.

106XP. Introduction to Early Childhood Education: Civic Engagement Perspectives. (4) (Formerly numbered 106SL.) Seminar, three hours; fieldwork, two hours. Limited to students who are participating members of Jumpstart AmeriCorps literacy program. 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. Discussion of history and framework of civic engagement. Evaluation of nonprofit organizations in Los Angeles by research teams. Offered in summer only. Letter grading.

M110XP. Community-Based Studies of Popular Literature. (4) (Formerly numbered Community Engagement and Social Change M110SL) (Same as English M115XP.) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisites: English Composition 3. Service learning course that examines history and development of one or more genres of popular literature, with attention to contemporary communities of readers and writers and formations of civil society. Topics 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.

M115. Citizenship and Public Service. (4) (Formerly numbered Civic Engagement M115.) (Same as Political Science M115C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisites: Political Science 10. Designed for juniors/seniors. Study of ways in which political thinkers have conceived of ideas of citizenship and public service, how these ideas have changed over time, and framework for thinking about citizenship in era of markets and globalization. P/NP or letter grading.
M123XP. Philanthropy as Civic Engagement. (5) (Formerly numbered M122.) (Same as Honors Col- legium M123XP) Seminar, three hours. Limited to ju- niors/seniors; application required. Study of history, philosophy, and practice of philanthropy. Practical ex- perience in setting priorities and making philanthropic investments in Los Angeles-based nonprofit organiza- tions. Letter grading.

130. Intercultural Communication in Global Work- place. (4) Seminar, three hours. Students enrolled in international or former internships draw on their own and each other’s experiences to critically think about intercultural communication, and to draw insights from that to aid in defining and building intercul- tural communication competencies in context of workplace environment. P/NP or letter grading.

133XP. 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. Service learning component includes meaningful work with community partners selected in advance by the instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

M134XP. Engaging Immigrants and Their Families. (5) (Formerly numbered Community Engagement M134SL) Seminar, four hours; fieldwork, two hours. Analysis of models and strategies these groups are pursuing to solve their pressing issues faced by residents of lower-income communities. Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Seminar-learning component includes meaningful work with off-campus partners selected in advance by the instructor and Center for Community Learning. Letter grading.

M147. Critical Analysis of Strategies toward Envi- ronmental Justice. (5) (Formerly numbered Civic Engagement 147) Lecture, four hours. Exploration of and engagement in critical analyses of strategies toward environmental justice including environmental education, civic ecology, environmental stewardship, political economy, campaigns, citizen science, community engagement, community planning, and urban tree canopy. Strategies are interwoven across four interconnected mod- ules: community exposure to harm; access to eco- system benefits and services; lack of diversity and en- gagement; and utilization of social-ecological systems approach. Students conduct case study analysis of strategies for engaging students to develop environ- mental justice, and develop collective course re- source on environmental justice strategies. P/NP or letter grading.

150. Social Innovation Theory and Application. (4) (Formerly numbered Civic Engagement 150.) Seminar, three hours. Limited to students in UCLA Summer So- cial Innovation Research Program. Study of social in- novation as theory of civic engagement, with partic- ular emphasis on the role of incubators and social enterprises. Students form teams to design and imple- ment projects to address unmet social needs. Students work in teams alongside staff of local nonprofit organi- zations in 10-week social enterprise accelerator pro- grams aimed at helping participating organizations se- cure financial and operational resources they need to implement social enterprise for which viable business plan has already been constructed. Students meet as a team to develop tailor-made plan for a social enterprise to achieve or maintain financial viability. Individual study or faculty mentor required. May not be repeated. Letter grading.

M152XP. Practicum in Social Entrepreneurship. (4) (Formerly numbered M188SB) Seminar, three hours. 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 study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa- ration of syllabus. May not be repeated. Letter grading.

M152XP. Exploring Social Change: Critical Analysis through Lens of Community Engagement. (4) (Formerly numbered Civic Engagement 152) Seminar, four hours. Exploration of theories driving social change and how visions and agendas get organized toward common efforts. Analysis of organizing frameworks that facilitate community collaboration, social, economic, and political change. Introduction to praxis, defined by Paulo Freire in Pedagogy of the Oppressed as “reflec- tion and action” defined and built into the structures to be trans- formed. P/NP or letter grading.

M163SL. 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. Service learning course that examines variable topics related to University/community partnerships and role of civic education in higher education. May be repeated for credit with topic or instructor change. Letter grading.

165XP. Storytelling for Social Justice: Research and Writing with Nonprofit Organizations. (5) (Formerly numbered Community Engagement and Social Change 165SL) Seminar, three hours; fieldwork, two hours. Limited to partnering organizations. Explore how nonprofit organizations use storytelling strategies to advance social justice. Offers opportunity to use re- search and writing skills telling stories of social justice through the lens of nonprofit organizations, students collaborate with nonprofit organizations to complete research and communication projects. Special focus on how story- telling can empower individuals and communities and advance equity in diverse urban centers like Los An- geles. Letter grading.

M170XP. Food Studies and Food Justice in Los An- geles. (4) (Formerly numbered M170SL) (Same as Food Studies M176XP) Seminar, three hours; fieldwork, two hours. Interdisciplinary service learning course that provides general understanding of access and equity issues related to food chain. Students will engage with community partners selected in advance to address equity issues related to food chain. Students will engage with community partners selected in advance to address equity issues related to food chain. Involves students to research food disparities, and focus on how these conditions play in COVID-19 risk and disparities, and role that community-engaged strategies can play in preventing or reducing health disparities. Includes case studies, discussions with community partners and interview with consultants in rich, diverse context on community partner due at end of course. P/NP or letter grading.

172XP. Community-Engaged Research to Address Health Disparities. (4) (Formerly numbered M172SL) (Same as Community Engagement M175SL) Seminar, three hours; fieldwork, two hours. Examination of how addressing social determinants in access to healthcare with little in way of changing risk environments. Designed to identify and provide opportunities to understand how to address social de- terminants related to negative health outcomes in ra- cially/ethnic minority neighborhoods or communities and to experience how to use social determinants lit- erature in service of collaborative activities with com- munity organizations. P/NP or letter grading.

M176XP. Making Films about Food. (5) (Formerly numbered M176SL) (Same as Food Studies M176XP and Public Affairs M176XP) Lecture, three hours. In- troduction to documentary video production and dis- tribution. Students work on assignments in pairs and small groups to create documentaries about one of several Los Angeles partner organizations that advocate for healthy, local, sustainable food. Consid- eration, through video production, of challenges posed by existing farming, ranching, and distribution methods, and strategies these groups are pursuing to create more sustainable food pathways. Students look at social media communication strategies to help think through intervention in face of historically entrenched industrial food production and regulations that remain too often focused on individual-level change or increases in access to healthcare with little in way of changing risk environments. Designed to identify and provide opportunities to understand how to address social de- determinants related to negative health outcomes in ra- cially/ethnic minority neighborhoods or communities and to experience how to use social determinants liter- ature in service of collaborative activities with com- munity organizations. P/NP or letter grading.

180. Access to Justice: Hope and Reality. (4) (Formerly numbered Civic Engagement 180.) Seminar, three hours. Limited to UCLA students who are mem- bers of JusticeCorps program through AmeriCorps. JusticeCorps was established with an innovative approach to solving one pressing issue faced by courts around country today: providing equal access to justice. Ex- amination of promise of justice system in America to provide meaningful access to all who seek it. What premises underlie structure of U.S. legal system? Exploration of sociopolitical context for cur- rent legal system, including origins and current status of legal services and self-help movements, including role of JusticeCorps. Were these strategies designed to make promise of equal justice a reality or have they inadvertently, or intentionally, resulted in two-tiered legal system—one for those with means and another for those without? P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) (Formerly numbered Civic Engagement 188SA) Tuto- rial, to be arranged. Enforced corequisite. Honors Col- legium 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 study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa- ration of syllabus. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) (Formerly numbered Civic Engagement 199SB) Tuto- rial, 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 fi- nalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) (Formerly numbered Civic Engagement 199CS) Tuto- rial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to fi- nalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

M188SP. Practicum in Social Entrepreneurship. (4) (Formerly numbered M188SP) Seminar, three hours. Enrollment by consent of instructor. Offers students full-scale immersion into clients who have launched social enterprises. Students work in teams alongside staff of local nonprofit organi- zations in 10-week social enterprise accelerator pro- grams aimed at helping participating organizations se- cure financial and operational resources they need to implement social enterprise for which viable business plan has already been constructed. Students meet as a team to develop tailor-made plan for a social enterprise to achieve or maintain financial viability. Individual study or faculty mentor required. May not be repeated. Letter grading.
juncture 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 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) Formerly numbered Civic Engagement 189HC. Tutorial, three hours. Limited to students in Scholars 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.

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 community change. 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 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. (4) (Same as Labor Studies M190C.) Seminar, three hours. Requisite: 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. 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. Integrates in capstone research project, typically length required of publishable journal articles (15-25 pages). Students’ research should be implementation of design completed in course 191A, and should be informed by their coursework in the minor. Letter grading.

195CE. Community and Corporate Internships in Community Engagement and Social Change. (4) (Formerly numbered Civic Engagement 195CE.) Tutorial, 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. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. Quarter in Washington, DC, Internships. (4) (Same as History M195DC, Political Science M195DC, Public Affairs M195DC, and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior Quarter in Washington program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

198. Honors Research in Civic Engagement. (4) (Formerly numbered Civic Engagement 198.) Tutorial, one- to two-quarter research project 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 mentor. Culuminating paper or project required. May be repeated once for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Civic Engagement 375.) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of faculty mentor. Cumulating project or paper required. May be repeated for credit. S/U grading.

COMMUNITY HEALTH SCIENCES

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Sarah R. Blenner 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,
Graduate Study

The department offers schoolwide professional (MPh) and academic (MS and PhD) degree programs. Graduates of the professional programs assume positions in the planning, administration, and evaluation of public health programs and policies in the U.S. and abroad.

Graduates of the academic programs assume teaching, research, and managerial positions in universities, government agencies, nongovernmental organizations, international health agencies, and research centers.

Graduate Majors

Community Health Sciences MS, PhD

Requirements

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

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 others' perspectives, read and discuss relevant reading material, and explore their own and other groups' experiences in various social and institutional contexts. Experiences of ways of taking action to create change and bridge differences at interpersonal and social/community levels. P/NP or letter grading.

80. FITTED: Fitness Improvement Training through Exercise and Diet. (Lecture, one hour, activity, two hours. Success in diet and exercise experience is very much influenced by attributes beyond intellectual competence. Examination of personal, social, and environmental factors influencing exercise and eating behaviors, physical activity patterns, and body image. Development of individualized student plans for eating well, being active, and feeling good about their bodies. Learning skills through participation. P/NP grading.

99. Student Research Program. (1 to 2) Seminar, eight hours. Limited to juniors, seniors, and graduate students. Entry-level research for lower-division students; supervised research or other scholarly work). Limited to seniors, with permission to graduate students in their capacity to implement sustained dialogues with students from other social identity groups. Letter grading.

100. Deepening the Graduate Experience. (4) Seminar, four hours. May be repeated for a total of 6 units with permission from the department. Letter or P/NP grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture. (4) Lecture, three hours; laboratory, 90 minutes. History and current relevance 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 laboratory in Sunset Canyon Recreation Center Organic Garden. P/NP or letter grading.

132. Health, Disease, and Health Services in Latin America. (4) Lecture, four hours. Introduction to health, disease, and health services in Latin America, with emphasis on epidemiology, healthcare delivery, 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 and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both health care and research for these populations. Letter grading.

160. Intergroup Dialogue: Theory and Practice of Peer Facilitation. (4) Lecture, four hours. Recommended requisite: course 60. Discussion on issues of difference conflict, and community to facilitate understanding between social/cultural groups. Peer facilitator training course to develop understanding of the theoretical and research foundations of intergroup dialogue as peer-facilitated interventions 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 requisite: course 160. Application and further development of content and skills learned in course 160. Co-facilitation of weekly dialogues with students on specific identity theme and further development of knowledge and techniques in areas of group dynamics, conflict intervention, communication and community, and mental health effects of structural inequality as they relate to discussions of social justice and multicultural issues. Readings in these areas and discussions of ongoing dialogue dynamics. May be repeated once for credit. Letter grading.

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 trends 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, four hours. Limited to juniors, seniors, and graduate students. Seminars and supervised research or other scholarly work for lower-division students. P/NP grading.

187A-187B. Introduction to Interventions for At-Risk Populations. (4-4) Lecture; three hours; committee meetings/community service, two to six hours. Course 187A is requisite to 187B. Designed for juniors/seniors. Health and social needs/services from primary to tertiary levels. Drawing from related academic/professional disciplines. Community-based service learning strategy used to enhance knowledge of concepts covered. As part of service portion, students trained as caseworkers and committee members. Letter grading.

188A-188B. Special Courses in Community Health Sciences. (4-2) Lecture, two hours (188B) and three hours (188A). Examination of current topics or particular subfields or experimental or temporary courses in community health sciences. Specific topic areas vary with instructor. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students. Advanced as designed to take undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

210. Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social science course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions and differential rates 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. (4-4) Lecture, three hours; discussion, one hour; outside assignments, eight hours. Course 211A is requisite to 211B. Development, planning, and administration of public health programs in community settings. Introductory to range of research methods and techniques used in designing and conducting health research, with particular emphasis on evaluation of community-based public health programs. Course organized into three modules. Letter grading. 211A: Research and theory, one hour; course 210A. 211B: Program design and evaluation, one hour; course 211A and Biostatistics 100B or Epidemiology 100 or Public Health 200A and 200B.

212. Advanced Social Research Methods in Health. (4) Lecture, one hour; laboratory, two hours; outside assignments, eight hours. Requisites: courses 212A, 211B, Biostatistics 100B, 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; research, one hour. Application of conceptual, theoretical, and evaluation skills to community-based health education risk-reduction programs. Computer applications, data management, and research methods for microcomputer and mainframe computer management and analysis of program databases. Letter grading.

214. Issues in Program Evaluation. (4) Discussion, three hours; research, one hour. Requisite: course 212. Advanced seminar that explores problems of planning and implementing evaluation research in context of local demonstration projects. Letter grading.

216A. Qualitative Research: Design and Data Collection. (4) Formerly numbered M216A.) (Same as Anthropology M285A.) Seminar, three hours; laboratory, one hour. Intensive seminar/field course in qualitative research with an emphasis on using qualitative methods and techniques in research and evaluation related to health care. Letter grading.

216B. Qualitative Research: Analysis and Dissemination. (4) Formerly numbered M285B.) Lecture, three hours. Hands-on approach to qualitative data analysis. Students learn how to conduct all steps of thematic analysis, including developing codes and coding schemes, analytic techniques to compare and categorize data, assessing validity and quality of data, as well as summarizing and presenting qualitative findings. Lectures, discussion of readings, and practical exercises by hand and with Dedoose computer software. S/U or letter grading.

M217. Current Issues in Food Studies. (4) Same as Urban Planning M216.) Seminar, three hours. Limited to seniors in College Honors. Open to all students. Food is complex subject that is production, procurement, preparation, consumption, and exchange of edible matter is biologically vital to human health and growth, development and function and critical to many aspects of society and culture. Food studies is growing cross-disciplinary field of research, teaching, and advocacy that encompasses and draws from cultural anthropology, geography, food law and policy, urban planning, sociology, literature, history, public health, nutrition, environmental science, molecular and cell biology, science and technology studies (STS), agronomy, and other related fields. Application of some of these wide-ranging topics and disciplines that define food studies. Letter grading.

M218. Questionnaire Design and Administration. (4) Same as Epidemiology M218.) Lecture, four hours. Requisites: courses 211A and Epidemiology 200B and 200C. Design, testing, field use, and administration of data collection instruments, with particular emphasis on questionnaires. Letter grading.

219. Theory-Based Data Analysis. (4) Seminar, three hours. Enforced requisites: courses 270A, 270B, Biostatistics 100B, 406, Public Health 200A, 200B, or permission of instructor. Limited to Community Health Sciences PhD students. Translation of theory into data for public health practice, its application and interpretation of results obtained through multivariate analysis. Analysis of quantitative data using range of multivariate techniques, such as linear multiple regression and factor analysis. Analysis of theoretical problem using student qualitative data or public use data. Letter grading.

220. Racism and Public Health: Social Epidemiologic Logic Approach. (4) Seminar, two hours; discussion, one hour. Requisite: Biostatistics 100B or permission of instructor. Examination of social epidemiologic methods and critical approaches to study of racial stratification and public health, with focus on (1) understanding racism-related factors as social determinants of health, (2) building methodological competence for conducting research on racism as social determinant of health, and (3) developing critical thinking to better understand how persons’ racial- or racism-related perspectives and experiences might inform their research. Letter grading.

221. African American Health across Life. (4) Seminar, two hours. Requisite: course 210. Critical examination of social, psychological, and biological pathways to health and longevity among African Americans through engagement with empirical research from multiple disciplinary perspectives (public health, psychology, medicine). Guided by social stress theory and other theoretical perspectives, consideration of health impact of historical and contemporary racial inequality. Application of this critical lens to examine current events and propose potential public health solutions and avenues for intervention. Study of African American health is often characterized by deficit arguments, which defines work as contributing only in terms of their health risks relative to majority. Discussion of risk factors associated with adverse health outcomes, but also identification of numerous resources utilized by African Americans to promote resilience and preserve health. Letter grading.

M222. Understanding Fertility: Theories and Methods. (4) Same as Sociology M260B.) Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 100B or permission of instructor. Examination of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on under-
standing key proximate determinants. For advanced students interested in population, demography, 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 through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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 biomedical researchers. Each graduate student in the seminar works with a faculty mentor to prepare a peer-review-quality research paper, with focus on theoretically informed empirical research relating to theoretically informed empirical research relating to public health policy and practice. S/U or letter grading.

226. Women's Health and Well-Being. (4) Lecture, two hours; discussion, one hour. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

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229. Policy and Public Health Approaches to Violence. (4) Lecture, four hours. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

230. Family and Sexual Violence. (4) Lecture, three hours; community, three to four hours. Examination of rape, intimate partner violence, elder abuse; assessment of definitions, causes, outcomes of research on family and sexual violence, as well as response of social service, medical, and criminal justice systems. Letter grading.

231. Maternal and Child Nutrition. (4) Lecture, four hours. Nutrition of mothers, infants, and children in countries at various levels of socioeconomic development; measures for prevention and treatment of protein/calorie malnutrition; relationship between nutrition and mental development; impact of ecological, socioeconomic, and cultural factors on nutrition, nutrition education, and service. Letter grading.

M232. Determinants of Health. (4) Same as Health Policy M242.) Lecture, three hours; discussion, one hour. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

233. Hunger and Food Insecurity as Public Health Issues. (4) Lecture, three hours. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

234. Obesity, Physical Activity, and Nutrition Seminar. (4) Same as Health Policy M255.) Seminar, three hours; fieldwork, one hour. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

235. Influence of Social and Physical Environment on Racial Health Disparities. (4) Seminar, three hours. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

237. Evolving Paradigms of Prevention: Interventions in Early Childhood. (4) Same as Health Policy M290.) Seminar, three hours; fieldwork, one hour. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

238. Evolving Paradigms of Prevention: Interventions in Adolescence. (4) Seminar, three hours. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.

247. Population Change and Public Policy. (4) Lecture, four hours. Preparation: at least one biostatistics or epidemiology course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing needs of socioeconomically disadvantaged groups. Overview of literature supporting relationship between socioeconomic status and food-related health conditions such as obesity, diabetes, and osteoporosis. Critical examination of plausible pathways from perspectives of multidisciplines (economics, nutrition, sociology, 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 in 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.
areas and consequent population migration. Principal focus on health consequences of these events and strategies to address health issues. Letter grading.

M256. Interdisciplinary Response to Infectious Disease Emergencies: Public Health Perspective. (4) (Same as Medicine M256, Nursing 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 how students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Education, Nursing, and Dentistry. Letter grading.

257. Program Planning in Community Disaster Preparedness. (4) Lecture, four hours; outside study, eight hours. Prerequisites: courses 211A, 211B, 295. Health education and emergency management principles combined to design, plan, implement, and evaluate community disaster preparedness programs, including needs assessment, identification of target population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.

258. Cooperative Interagency Management in Disasters. (4) Lecture, four hours. Recommended requisite: courses 256 and 257. Study of disaster preparedness, response, and recovery for natural and human-made disasters. Interpretation of broad overview of how different agencies involved in disaster responses work together to handle impact of mass population emergencies. Identification of role of local, state, national, and international public and private sector organizations, media, and healthcare facilities in disaster situations. Students meet with representatives of different agencies involved in disaster response, and visit one of area’s state-of-the-art emergency management operations facilities. Letter grading.

M259. Smoking, Drinking, Shooting, and Driving: Understanding Public Health Policy in U.S. (4) (Same as Health Policy and Management M259.) Lecture, two hours; discussion, two hours. Recommended requisite: Community Health Sciences 286. Overview of essential theories regarding development, implementation, and impact of public health policy in U.S. with emphasis on state and local governments. Students develop skills in public health policy research (laws, regulations, statutes, ordinances) and engage in critically analyzing evidence for different approaches currently used to address some main causes of death and disability in U.S. including tobacco, alcohol, firearms, food and nutrition, and motor vehicle safety. Policy review of studies, exploration of public use data, group discussions, and directed individual research. Students engage in discussion and debate regarding contemporary challenges and emerging policy issues. Letter grading.


M263. Social Demography of Los Angeles. (4) (Same as Sociology M263.) Lecture; three hours. Designed for graduate students. Use of city of Los Angeles to examine major social and demographic factors that characterize cities in U.S. Examination of role of these factors in affecting health outcomes. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M233A and Latin American Studies M264.) Lecture; three hours. Recommended preparation: course 132. 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, ritual and case examples of religion and healing practices via lecture, film, and audiocassette. Letter grading.

270A-270B. Foundations of Community Health Sciences. (4-4) Lecture, four hours. Enforced requisite: course 210. Course 270A is enforced requisite to 270B. Limited to departmental doctoral students. In-depth analysis of theories, methods, and research on which community health sciences are based. Letter grading.

271. Health-Related Behavior Change. (4) Lecture, four hours. Prerequisite: course 210. Unified behavioral science approach to natural determinants of change, as foundation for planned change in health-related behavior at community, group, and individual levels. Letter grading.

272. Social Epidemiology. (4) (Same as Epidemiology, M272.) Lecture, four hours. Enforced requisite: Epidemiology 100 or Public Health 200A and 200B. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other socioenvironmental factors associated with general susceptibility to disease and subsequent mortality. Letter grading.


277. Advanced Community Health Education. (4) Lecture, four hours; discussion, two hours. Prerequisite: course 210. Before planning educational components of health program, one must assess behaviors and factors influencing health problem. Conceptual, theoretical, and evaluation skills developed and applied in constructing community-based educational program. Letter grading.

278. Work and Health. (4) (Same as Environmental Health Sciences M270.) Lecture. Three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. Letter grading.

281A. Capstone Seminar: Health Promotion and Education. (4) Seminar, 90 minutes; discussion, 90 minutes. Enforced requisite: course 210. Current problems and findings in health promotion and education (e.g., nutrition, exercise, HIV/AIDS, minority health); learning from presentations and critical discussions of master’s project reports completed under faculty supervision. Letter grading.

281B. Capstone Seminar: Health Promotion and Education. (2) Seminar, one hour; discussion, one hour. Current problems and findings in health promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master’s project reports completed under faculty supervision. Letter grading.

282. Social Marketing for Health Promotion and Communication. (4) Lecture, three hours; fieldwork, one hour. Prerequisite: course 210. Planning, creating, implementing, and evaluating communication health campaigns, including use of social marketing practices and strategies of audience research, marketing psychology, creative message development, branding, comprehensive media use for dissemination, transmedia. Competencies: conducting focus group interviews, creating and evaluating effective health communication, personal interview, and comprehensive assessment of existing campaigns. Letter grading.

283. Evidence-Based Health Promotion Programs for Older Adults. (4) Seminar, three hours. Prerequisite: course 210. Graduate seminar intended to explore sociocultural determinants of health-related behaviors among aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4) Seminar, three hours. Prerequisite: course 210. Designed for graduate students. Examination of how society shapes mental health of its members and lives of those who have been identified as mentally ill. Group differences (e.g., gender, ethnicity) in disorder and how it is socially constructed. Letter grading.

286. Doctoral Roundtable in Community Health Sciences. (4) Seminar, two hours. Designed for departmental doctoral students who must enroll every term. Use of research programs and dissertation candidacy. Interactive seminar with focus on research process and social mechanisms in science. May be repeated for credit. Letter grading.

M287. Politics of Health Policy. (4) (Same as Health Policy and Management M287 and Public Policy M268.) Lecture, three hours; discussion, one hour. Prerequisite: course 210 or Health Policy 200A and 200B. Examination of politics of health policy process through analysis of case studies such as environmental protection, pandemic preparedness and response, preventive health services for women, and racial and income inequality and health. Examination of framework for assessing evidence-based policy making and effects of political structure and current political divisions, including efforts such as to repeal and dismantle Affordable Care Act. Letter grading.

288. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Prerequisites: course 210 or prior social sciences courses. Media utilization, media effects, media content, media advocacy, regulation, advertising, video and audio storytelling techniques, new media, entertainment education, and transmedia. Competencies: media content analysis, writing popular nonfiction (blogs, journalism), creating and evaluating effective communications using popular media. Letter grading.

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Experience of aging for African American, Latino, and Asian elderly examined in context of their family and national. Exploration of cultural and structural influences on health and lived experiences of those elders. Letter grading.

291. Health Policy and Aged. (4) Lecture, three hours; discussion, one hour. Examination of political, economic, and social forces that shape health policy for aged, identifying failings in those policies within framework of broader health policy problems. Letter grading.

292. Information Technology for Health Promotion and Communication. (4) Lecture, three hours; field practice, one hour. Prerequisites: course 210 or prior social sciences courses. Health information technology and health communication, design of health communication materials using digital media that integrates practice and theory and includes websites, print materials, short videos, curricula, and training materials. Laboratory sessions for materials production. Competencies: creating health communication materials for diverse audiences using new media information technology applied to website, social media, print media, video, and audio platforms. Letter grading.

293. Social and Behavioral Research in AIDS: Roundtable Discussion. (2 to 4) Discussion, two hours; individual consultation, two hours. Review and discussion of research programs directed toward identification of psychosocial, biobehavioral, environmental, and community factors related to prevention and control of AIDS/HIV. Letter grading.

M294. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Psychiatry M288.) Lecture, four hours. Prerequisites: course 100 and Epidemiology 100, or prior social sciences courses. Overview of social, psychological, and behavioral influences on both transmission and prevention of HIV/AIDS throughout world. Letter grading.

295. Overview of Emergency Public Health. (4) Lecture, four hours. Designed for graduate students. Overview of issues influencing preparedness and response for public health agencies. Introduction to theoretical and practical aspects of field of emer-
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 pregnancies, 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. Implications for health services, and policy. Topics include anatomy and physiology of male and female reproductive health tracts, methods of birth control, medical and surgical abortion, infertility, sexually transmitted and sexual violence and trauma. S/U or letter grading.

432. Perinatal Healthcare: Principles, Programs, and Policies. (4) Lecture, three hours; discussion, one hour. Comprehensive examination of perinatal healthcare, including historical, ethical, policy, outcome measures, public programs, controversies surrounding new technology, regionalization, organization of services at federal, state, and county levels, and medical/ legal issues. S/U or letter grading.


435. Seminar: Advanced Issues in Women's Health. (4) Seminar, three hours. Prerequisites: at least one prior women’s health course, one to two biostatistics courses, one research methods course. Provides more advanced and in-depth understanding of ways in which scientists know; and considerations of women’s place in scientific discourse. Examination of series of case studies as starting point for discussion. Letter grading.

436A-M436B. Child Health, Programs, and Policies. (4-4) [Same as Health Policy M449A-M449B] Lecture, four hours. Requisite: Health Policy 100. Course M436A is requisite to M436B. Examination of horizontal and vertical equity determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.

440. Public Health and National Security at U.S.- Mexican Border. (4) Lecture, three 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 pertain along U.S.-Mexico and coastal California borders. Integrated within public health framework are issues and mitigation of national security and disaster/terrorist risks and hazards. Letter grading.

441. Planning and Evaluation of Global Health Pro- grams. (4) Lecture, four hours. Theory, 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 Dietetic Aspects of Nutri- tional Assessment. (4) Lecture, two hours; discus- sion, one hour; laboratory, two hours. Practical skills in anthropometric and dietary assessment, including selection of appropriate methods, data gathering and handling, and analysis and presentation. Letter grading.

446. Nutrition Education and Training: Third World Considerations. (4) Lecture, two hours; discussion, one hour. Essential knowledge and skills required to design, implement, and evaluate nutrition education and training programs and policies for populations in developing countries. Topics will include nutrition policy, communication, organization building, organizational capacity building, media relations, and message development for various audiences. Students learn about range of former and current reproductive health advocacy campaigns. Letter grading.

447. Health and Social Context in Middle East. (4) Lecture, four hours. Recommended preparation: background in Islamic or Middle Eastern studies. Requir- es: course 200 or 231 or 434A. Current health is- sues and problems of countries in Middle East and im- plications for socioeconomic development. Review of economic, demographic, and cultural variation of re- gion to provide background for discussion of trends and patterns of health and nutritional status of popula- tion in area. Letter grade required.

448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours; field visits. Preparation: one nutrition sciences course and/or nutrition program ex- perience plus nutrition program experience in developing 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 or biology course. Advanced-level seminar on nutritional needs of healthy individuals, current knowl- edge of role of nutrition in disease prevention, nutri- tional and metabolic responses to disease, and role of nutritional therapy in management of disease. Letter grading.

451. Post-Disaster Community Health. (4) Lecture, four hours. Examination of how public health research and practices can be combined to address post-di- saster community health needs. Identification of disas- ter-related health priorities, mitigation 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 students with a master's degree or interested in humanitarian relief. Basic principles required to de- sign rational and cost-effective food and nutrition emergency relief approaches and programs. Letter grading.

CM470. Improving Worker Health: Social Move- ments, Policy Debates, and Public Health. (4) [Same as Environmental Health Sciences M471 and Urban Planning M470.] Lecture, three hours; field- work, 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 inter- ventions. Concurrently scheduled with course CM170. S/U or letter grading.

477. Health Disparities, Health Equity, and Sexual Minority Populations. (4) Discussion, two hours; dis- cussion, one hour. Limited to graduate students. Exam- ination of health disparities affecting sexual minority populations, category that includes lesbians, gay men, bisexuals, and transgender (LGBT) persons. Use of Healthy People 2010 Companion Document for LGBT Health to outline key health issues and national rec- ommendations for achieving reductions in each area. Discussion of considerations for providing clinical care and public health practice in this population, unique social and contextual factors influencing LGBT health, and methodological issues for conducting research among LGBT persons. Letter grading.

482. Practicum: Community Health Sciences. (4) Discussion, two hours; fieldwork, up to 20 hours. Requir- es: courses 210, 211A, 211B. Understanding of professional practice in health-related organizations. Letter grading.

484. Risk Communications. (4) Lecture, three hours; fieldwork, one hour. Requisites: courses 210, 211A, and 211B, or prior public health and behavioral sci- ences 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, public health, privacy, food-borne diseases, disasters, and bioterrorism communication. Compe- tencies: understanding everyday and emergency risk communication principles, creating valid risk commu- nication messages and materials, working proactively with new media. Letter grading.
Comparative Literature

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Aamir R. Mutti, 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
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 analytical essays

Entry to the Major

Transfer Students

Transfer applicants to the Comparative Literature major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English composition course, two literature survey courses, at least one of which must be world literature, and the equivalent of at least one year of foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: (1) Two courses from the Comparative Literature 1, 2, or 4 series (with approval of the director of undergraduate studies, a comparable and appropriate lower-division course in another department may be substituted for one of the courses), (2) completion of the College Writing requirement, and (3) 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.

The Major

Required: Ten courses, of which (1) five must be from comparative literature offerings, including Comparative Literature 100 and at least four additional comparative literature courses selected from M101 through 197, (2) three upper-division literature courses using original language texts in the primary language area, and (3) two upper-division literature courses using original language texts in the secondary language area (students may petition the student services adviser to take two upper-division literature courses in translation if their primary literature area is in a language other than English).
Undergraduate Minor

Comparative Literature Minor

The Comparative Literature minor offers students interested in literature and the humanities the opportunity to gain insight into the critical problems and theories addressed by comparative literature and to apply that knowledge in literature and comparative literature courses.

Admission

To enter the minor students must have fulfilled the College Writing requirement, have completed 40 units with an overall grade-point average of 2.0 or better, have taken at least one year or equivalent of a language other than English, and contact the student services adviser, 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 minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

Comparative Literature MA, CPhil, PhD

Requirements

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

Comparative Literature

Lower-Division Courses

1A. World Literature: Antiquity to Middle Ages. (5)

Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2W or 4W. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Ilai or Odyssy, Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristam and Iseult. P/NP or letter grading.

1B. World Literature: Middle Ages to 17th Century. (8)

Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2BW or 4BW. Study of world literature, with emphasis on Western civilization as it grapples with its past and with other civilizations. Examination of works such as Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare’s King Lear, and Sor Juana’s Mexican poetry. P/NP or letter grading.

1C. World Literature: Age of Enlightenment to 20th Century. (5)

Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major texts in world literature, with emphasis on Western civilization. Authors include Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, Dostoevsky, Kafka, Joyce, Woolf, and Stevens. P/NP or letter grading.

1D. Great Books from World at Large. (5)

Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2DW or 4DW. Study of major literary texts usually overlooked in courses that focus on canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of the 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 conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

1E. Social Media and Storytelling: Comparing Cultures. (5)

Lecture, two hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of ways in which social media construct increasingly diverse and centered narratives—with which we make localized sense of world. Equal emphasis on visual, visual, and sonic networks in art, politics, and health care. P/NP or letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5)

Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 4AW. Study of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Odyssy, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, Marie de France, Tristam and Iseult, One Thousand and One Nights, Popul Vuh. Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5)

Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 4BW. Study of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Chaucer, Dante, Cervantes, Marie de Navarre, Shakespeare, Calderon, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to 20th Century. (6)

Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 1C or 4CW. Study of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Diderot, Dostoevsky, Flaubert, Goethe, Ibsen, James Joyce, Kafka, Jamaica Kincaid, Garcia Marquez, Rousseau, M. Shelley, Strindberg, Swift, Voltaire. Analysis of texts includes focus on structures, processes, and practices that generate inter-group inequities or conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

2DW. Survey of Literature: Great Books from World at Large. (5)

Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 1D or 4DW. Study of major literary texts usually overlooked in courses that focus on canon of Western literature, with emphasis on literary analysis and expository writing. Texts from at least three of the 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 conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

4AW. Literature and Writing: Antiquity to Middle Ages. (5)

Discussion, four hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 2AW. Study and discussion of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works and authors such as Ilai, Odyssy, Gilgamesh, Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, Marie de France. Satisfies Writing II requirement. Letter grading.

4BW. Literature and Writing: Middle Ages to 17th Century. (5)

Discussion, four hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 2BW. Study and discussion of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Dante, Cervantes’ Don Quixote, Shakespeare, One Thousand and One Nights, Christine de Pizan, Popul Vuh, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

4CW. Literature and Writing: Age of Enlightenment to 20th Century. (5)

Discussion, four hours. Enforced requisite: English Composition 3 or 4H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 2CW. Study and discussion of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Chaucer, Dante, Diderot, Tristam and Iseult, One Thousand and One Nights, Popul Vuh. Satisfies Writing II requirement. Letter grading.

4DW. 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 2DW. Study and discussion of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Diderot, Dostoevsky, Flaubert, Goethe, Ibsen, James Joyce, Kafka, Jamaica Kincaid, Garcia Marquez, Rousseau, M. Shelley, Strindberg, Swift, Voltaire. Analysis of texts includes focus on structures, processes, and practices that generate inter-group inequities or conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.
and discussion of major literary texts using over-looked in courses that focus only on canon of Western literature, 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 texts. May include works by authors such as Achebe, Can Xue, Desai, Erichemta, Kincada, Neruda, Ngugi, Pak, Rushdie, and El Saadawi. Analysis of texts includes focus on structures, processes, and practices that generate inter-group inequities or conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

10. Virtual Reality and Humanities. (5) Lecture, two hours: discussion, two hours. What exactly are humanities? Position of humanities as not science is becoming unclear as human communication, thought, and culture are increasing tied to technology. Examination of various disciplines within humanities at UCLA to define their place in today’s society, contemplate their possible function in tomorrow’s world, and determine to whom humanities will and will not cater in future. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and examining many paths of discovery at UCLA. P/NP grading.

20. Blockchain: Future of Absolutely Everything. (5) Lecture, three hours; discussion, one hour. Interdisciplinary examination of social, cultural, and scientific significance of blockchain technology. Critical evaluation of social, political, legal, and cultural effects of blockchain’s potential to improve human behavior and impact our sense of individuality. P/NP or letter grading.

99. 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

100. Introduction to Literary and Critical Theory. (5) Lecture, four hours. Preparation: satisfac-tion of Entry-Level Writing requirement. Prerequisites: Two courses from Comparative Literature 1 or 2 series or English 10 series or Spanish 60 series, etc. Seminar-style introduction to discipline of compar-ative literature through series of readings illustrative of its formation and practice. Letter grading.

M101. Hebrew Literature in English—Literary Tra-ditions of Ancient Israel: Bible and Apocrypha. (4) (Same as Jewish Studies M150A.) Lecture, three hours. Survey of literary culture of ancient Israel through examination of principal compositional strate-gies of Hebrew Bible and Apocrypha (read in transla-tion), P/NP or letter grading.

102. Classical Traditions: Epic. (4) Seminar, three hours. Designed to open up classical literature majors. Analysis of Iliad, Odyssey, Aeneid, Gerusalemme Liberata, and Paradise Lost both in their relation to contemporary societies and to literary traditions. Empha-sizes how poets build on work of their predecessors. P/NP or letter grading.

103. People on Run: Migrants, Minorities, and Mul-ticulturalism in Europe. (4) Seminar, three hours. Problem of migrants and refugees in ongoing crisis of European Union. Focus on refugee 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 main questions in which current debate centers. Attempt to dominate discussions of future of what had primarily been conceived of as one economic union. Of-fered in summer only. P/NP or letter grading.

104. Art of Film Making. (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, biog-raphies, paintings, musical compositions, or philo-sophical concepts into multi-layered medium of cinema. Adaptations addressed include selection of films from range of cultural and linguistic traditions by directors such as Kiarostami, Varda, Kurosaw, Babenco, Rossellini, Hitchcock, Antonioni, Kieslowski, and Taymor. Specific directors, films, and cinematic traditions examined include French New Wave, the history of nations and biography of family members. May be used to satisfy Writing II requirement. Letter grading.

105. Comic Vision. (4) Lecture, three hours. De-signed for upper-division literature majors. Literary masterpieces, both dramatic and nondramatic, se-lected to demonstrate variety of comic expression. May be used to satisfy Writing II requirement. P/NP or letter grading.

106. Archetypal Heroes in Literature. (4) Seminar, three hours; discussion, one hour. Focus on literary works, cultural and political background, that are re-lated to many ancients. Survey and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Od-ipus, and Orpheus in literature from antiquity to modern period. All works read in translation. P/NP or letter grading.

107. Film on Brain. (4) Seminar, three hours; discus-sion/analysis, two hours; film laboratory, one hour. De-sign for juniors/seniors. Survey and analysis of in-tersections between film analysis and neuroscience. Exploration of questions such as how do cues on screen prompt emotions in mind; what are viewers’ neurological responses to comedy; what are potential affects of films on the mind. P/NP or letter grading.

108. Autobiography in Francophone and Anglo-Phone Worlds. (5) Seminar, three hours. Designed for juniors/seniors. Focus on number of narratives that use autobiographical mode to situate self in relation to history of nations and biography of family members. Introduction to theories of subjectivity and to genre of self-written texts in France, Africa, and Caribbean. Compar-ison of serial autobiographies of Assia Djebar, Annie Ernaux, and Delphine Yacon, with students correspond to screen violence. Investigation of emotional contagion that occurs between certain screen characters and certain viewers, including in narrative structures ac-knowledged to be created by directors to elicit emotional responses from audiences. Students learn to produce five- to eight-minute film on relevant topic in film laboratory. May be concurrently scheduled with course C205. Undergraduate students read all works in translation. P/NP or letter grading.

M110. Al-Andalus: Literature of Islamic Spain. (4) (Same as Arabic M155.) Lecture, three hours. Study of literary tradition 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.

M119. Andalusian Languages and Literatures of Western Eu- rope. (4) (Same as Central and East European Studies M120.) Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania, Serbia, Slovenia, Turkey) in last forty years. Emphasis on cultural, social, political, and economic factors affecting women’s roles during countries’ transition from agricultural to industrial economy and from communism to post-communism (in former communist countries). Sensitizes students to complexity of issues in region and helps them better understand multiplicity of causes present sit-uation. Interdisciplinary study, drawing on sociolog-ical/women’s studies articles, and short fiction by women writers for analysis. Discussion of topics cov-ered in articles and readings from authors and ways in which aspects of Southeast European realities are rendered in fictional form by women writers from re-gion. P/NP or letter grading.

C122. Renaissance Drama. (4) Lecture, three hours. Preparation: satisfaction of Entry-Level Writing requirement. Prerequisites: Two courses from Comparative Literature 1 or 2 series or English 10 series or Spanish 60 series. Recommended: course 100. Explo-ration of history of comparative literature discipline and various methods of current debates concerning nature of discipline. Introduction to several key theoretical texts from early 20th century to present, addressing these and other related ques-tions: What is significance of reading literature across existing na-tional and linguistic borders? What are criteria for con-ducting such comparative readings? Is comparative reading more concerned with finding similarities or dif-ferences? 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.

M123. Oral Literature and Performance of Arab World. (4) (Same as Arabic M123.) Lecture, three hours. Knowledge of Arabic not required. Introduction to study of living oral traditions of troubadours, story-tellers, oral poets, and performers in Arabic-speaking Middle East. P/NP or 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.

M142. Travel Narratives, Testimonies, Autobiography. (4) Same as French M112C) Lecture, four hours. Taught in English. Exploration of travel, memory, and narrative in Portuguese-speaking world. Primary focus on the role of displacement, cultural contact, and assimilation. Overview of connections among Portuguese-speaking cultures. May be repeated for credit with topic change. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4) (Same as Arabic M148.) Seminar, three hours. Exploration of narratives, reality shows—all products of transnational and pan-Arabic media, national music industries, and iconic singers—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 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 European literature and French poetry and prose, including authors such as Baudelaire, Rimbaud, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C252. Undergraduate students may read all required French texts in translation. P/NP or letter grading.

C153. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Designed for upper-division literature majors. Study of interwar and modern poetry and poetics and the role of language in them from the first half of the 20th century. Texts may include poems such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valery, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C253. Undergraduate students may read all texts in translation. P/NP or letter grading.


M165. Holocaust in Literature. (4) (Same as Jewish Studies M151.) Lecture, three hours. May also be organized around Arab literature written in one specific language, namely Arabic not required. Examination of relation between humans and world. Only relevant issues. P/NP or letter grading.

M166. Modern Jewish Literature. (4) (Same as Jewish Studies M151A.) Lecture, three hours. Study and analysis of Jewish literature, film, theater, and music. Topics may include historical, social, and cultural aspects of Jewish history and culture. May be concurrently scheduled with course C261. P/NP or letter grading.

M175. Race, Gender, Class. (5) (Same as Asian American Studies M165.) Seminar, three hours. Analysis of race, gender, and class as separate but interconnected spheres of use of historical events, situations, and characters in literary works of Renaissance and/or modern period. Designed for upper-division literature majors. Investigation of narratives by contemporary French, German, English, American, Spanish American, Afro-Caribbean, and Asian writers. P/NP or letter grading.


M179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Middle Eastern Studies M179SL.) Seminar, three hours; field trip, four hours. Examination 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 animals, sentience or consciousness exists to integrate often complex input and decide on course of action.
180. Variable Topics: Medical Humanities in Comparative Contexts. (4) Seminar, three hours. Designed for undergraduates in the humanities and social sciences. 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.

180SL. Variable Topics: Medical Humanities in Comparative Contexts and Community-Based Learning. (4) Seminar, three hours; fieldwork, three hours. Exploration of topics in medical humanities with community service component, giving pride of place to literary and cultural expressions in dialogue with medical professionals, professionals in psychology, philosophy, sociology, or consulting. 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 writing honors papers. Enrollionio
252. Symbolism and Decadence. (5) Seminar, four hours. Preparation: reading knowledge of French. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including authors such as Baudelaire, Rimbaud, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C152. Graduate students required to prepare papers based on texts read in original languages whenever possible and to meet for one additional hour each week. S/U or letter grading.

253. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Study of specific poets and poetics related to them in first half of 20th century. Texts may include works by Yeats, W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C153. Graduate students may meet as group one additional hour each week. S/U or letter grading.

256. Fantastic Fictions. (4) Seminar, three hours. Time and again in modern literature, corpses become conduits or catalysts for revelation. What are those ghosts that fiction frequently cannot put to rest, and what is their connection to national history or nation language or narrative? Readings from James Joyce, John Banville, Henry James, Tori Morrison, Adolfo Bioy Casares, Jonathan Lethem, Juan Rulfo, and Carlos Fuentes, with films by Alejandro Amenabar, Andrei Tarkovsky, and Kenji Mizoguchi. May be concurrently scheduled with course C156. Graduate students have additional meetings and theoretical readings by Benjamin, Freud, Barthes, Derrida, Rabate, Rickels, and Caruth. S/U or letter grading.

258. Literature and Visual Arts. (4) Lecture, three hours. Knowledge of art history valuable but not required. Assuming that literature and visual arts are inextricable, texts read in original languages and may meet as group one additional hour each week. Knowledge of one appropriate foreign language. Study of modern European and American works that are concerned with matter and artistic method, with growing self-consciousness of human beings and their society, with focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrently scheduled with course C169. Graduate students required to prepare papers based on texts read in original languages. S/U or letter grading.

261. Culture and History. (4) Seminar, three hours. Analysis of use of historical events, situations, and characters as conduits or catalysts for revelation. Study of relationships between writers and movements in painting, architecture, and sculpture, and the material and ideological factors influencing them and differences between plastic and verbal arts in comparative study. May be repeated for credit with instructor and/or topic change. May be concurrently scheduled with course C160. Graduate students required to prepare works based on texts read in original languages. S/U or letter grading.


272. Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of postmodern novel, which has developed out of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on relationship of recent novels to theories of philosophy and literary studies. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Concurrently scheduled with course CM172. Graduate students required to meet as group one additional hour each week. S/U or letter grading.

274. Theorizing Third World. (4) (Same as Asian American Studies M261.) Seminar, three hours. Investigation of politics of power, gender, and race in contemporary fiction. What is the relationship of modern metropolitan bourgeoisie to indigenous Third World, using both theoretical and textual approaches. S/U or letter grading.


276. Reading Modern Bodies. (4) (Same as Japanese M276.) Seminar, three hours. Preparation: graduate course in comparative literature. Study of ways in which visual arts and photography in American and European contexts. Study rests on premise that photographs enter public domain framed by writing and discourse and that in turn, photographs are reshaped by photographic modes of representation. S/U or letter grading.

278. Comparative Arab Studies. (5) Seminar, three hours. Preparation: knowledge of one appropriate foreign language. Investigation of ways in which Arab literates, artists, and intellectuals have perseveringly sought to imagine and construct viable structures of cultural empowerment on the political project of Arab nationalism and in growing response to globalization and consolidation of Western colonial and imperial ideologies in Arab world. Particular attention to technical and experimental modes of expression through which Arab artists working in different genres have engaged with some persistent and recurrent questions related to their mission, vocation, and commitment (iltizam) to Arab world, to responsible mimetic urgency, and to general uses/potencies of rhetoric and poetics within contexts of profound asymmetries of power, temporarilnes, and actualities. S/U or letter grading.

286. Workshop: Social Sciences Translation. (4) Seminar, three hours; tutorial, one hour. Preparation: solid reading knowledge of at least one foreign language. Open to qualified undergraduates with proper language preparation. Introduction to principles of literary translation heuristically, that is, on basis of difference in material, context, and translation techniques. Readings include authors such as Matthew Arnold, Walter Benjamin, George Steiner, and Susan Bassnett. S/U or letter grading.

288. Theory of Translation. (4) Seminar, three hours. Examination of various approaches to translation and its theoretical and practical issues in light of historical and contemporary contexts. S/U or letter grading.

289. Latin American Literature in Comparative Context. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. In-depth study of one topic of Latin American literature in comparative context. May be repeated for credit. S/U or letter grading.

290. Latin American Literature in Comparative Context. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. In-depth study of one topic of Latin American literature in comparative context. May be repeated for credit. S/U or letter grading.

291. Studies in Contemporary Spanish-American Literature. (4) (Same as Spanish M281B.) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of intertextual relations between so-called First World and postcolonial societies. Use of key texts by members of Subaltern Studies collective of Indian historians to explore some central issues arising from this relationship. What kind of interdisciplinary space is produced by dialog of history and literary and cultural theory? Attention to literary texts to practice such interdisciplinary criticism. Nature of modernity in colonial setting. What is nature of bourgeoisie in colonial society? What kind of modernization does it seek? What is relationship of modern capitalist bourgeoisie to indigenous one? S/U or letter grading.

292. Comparative Literature / 341
we understand something foreign to us by immersing ourselves in it or by standing apart? Does 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 Erich Auerbach. Concur-
rently scheduled with course C187. S/U or letter
grading.

M288. Modern Arab Thought. (4) (Same as Arabic
M288.) Seminar, three hours. While much has been
written and said about resurgence and spread of polit-
ical Islam after collapse of ideology of secular nation-
alism and failure of Arab left to apprehend exigencies
of postrevolutionary/postcolonial moment, little has
been devoted to less sensational topic of modern
Arab thought despite unmistakable proliferation of
critical output produced by Arab thinkers and artists
in aftermath of 1967. Course addresses and redresses
this glaring imbalance by considering new cultural
media—literary, critical, philosophical, artistic, and jour-
nalistic—produced before and after al-Nahda but mostly
before and after 1967 and fosters insightful ap-
proaches to unlikely coexistence in Arab contemporary
literature. Emphasis on ever-deepening and generalized crisis and of
steady and consolidated development (if not efferves-
cence) of cultural and artistic production. S/U or letter
grading.

289. Theory of Film and Literature. (5) Seminar,
three hours; film screening, two hours. Study of redefi-
nition and aims of theories of film and literature. Ap-
proaches vary by instructor (e.g., postcoloniality, psy-
choanalytic, and Marxist approaches). S/U or letter
grading.

290. Contemporary Theories of Criticism. (4) Sem-
inair, 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-
onialism since relevant writings of Karl Marx and Frie-
drich Engels. Examination of number of landmark the-
ories of empire and consideration of whether or not
they may be said to constitute coherent tradition or
line of theoretical development. Question of resistance
to imperial rule and role it plays in these theoretical ac-
counts. S/U or letter grading.

299. Aesthetics and Literature. (4) Seminar, three
hours. Preparation: reading knowledge of one appro-
appropriate foreign language. Study of literary theory
through exploration of approaches to literature by phi-
losophers grounded on analytic tradition. Careful at-
tention to concepts of truth, meaning, expression, rep-
resentation, metaphor, fiction, and literature. Letter
grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inair, to be arranged. Preparation: apprentice per-
sonnel employed as teaching assistant, associate, or fel-
low. 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.

495. Preparation for Teaching Literature and Com-
position. (4) Seminar, three hours. Seminar on prob-
lems and methods of presenting literary texts as ex-
emplary materials in teaching of composition. Deals
with theory and classroom practice and involves indi-
vidual counseling and faculty evaluation of teaching assistants’ performance. May not be applied toward MA course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be ar-
ranged. Preparation: consent of UCLA graduate ad-
viser and graduate dean, and host campus instructor,
department chair, and graduate dean. Used to record
enrollment of UCLA students in courses taken under
cooperative arrangement. Limited to 12. S/U or letter
grading.

596. Directed Individual Study or Research. (2 to
12) Tutorial, to be arranged. Limited to graduate com-
parative 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.

596X. Directed Individual Study. (2 to 4) Tutorial,
to be arranged. Preparation for foreign language exam-
ination. S/U grading.

597. Preparation for MA and PhD Examinations. (2
to 12) Tutorial, to be arranged. Limited to graduate
students. Preparation for MA comprehensive exam-
ination or PhD qualifying examinations. May be re-
peated for credit. S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tuto-
rial, to be arranged. Limited to PhD students. Re-
search for and preparation of PhD dissertation. May
be repeated for credit. S/U grading.

COMPUTATIONAL AND SYSTEMS BIOLOGY
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Alexander Hoffmann, PhD (Microbiology, Immunology, and Molecular Genetics)
Shantanu H. Joshi, PhD (Bioengineering, Neurology)
James O. Lloyd-Smith, PhD (Computational Medicine, Ecology and Evolutionary Biology)
Aaron S. Meyer, PhD (Bioengineering)
Matteo Pellegrini, PhD (Human Genetics; Molecular, Cell, and Developmental Biology)
Van M. Savage, PhD (Computational Medicine, Ecology and Evolutionary Biology)
Roy Wollman, PhD (Chemistry and Biochemistry, Integrative Biology and Physiology)
Xinshu Grace Xiao, PhD (Integrative Biology and Physiology)
Xia Yang, PhD (Integrative Biology and Physiology)

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.

Undergraduate Major
Computational and Systems Biology BS
Computational and Systems Biology majors select a coherent integration of courses from one of three designated tracks: bioinformatics, biological data sciences, or dynamical modeling. The synergy for all tracks is integrative systems, information, and computational systems modeling sciences in biology. The focus is primarily quantitative, as mastery of advanced quantitative skills is essential for multidisciplinary understanding. Each track emphasizes different systems or modalities, and modeling or other computational approaches. Students choose one of the three tracks when they declare the major. Well-justified customized tracks may also be approved by the faculty.

Bioinformatics Track
The bioinformatics track is designed for students interested in computational discovery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computational, statistical, and other mathematical approaches for mining, modeling, and analyzing high-throughput biological data and its representation in 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.
Biological Data Sciences Track

The biological data sciences track addresses a diverse set of biological questions—ranging from medicine, to genomics, physiology, pharmacology, neuroscience, ecology, and evolution—using recent tools and advances in mathematics and computation—specifically machine learning, statistical data sciences, and informatics. Biological data sciences leverages new and developing courses within computational and systems biology and across UCLA, and greatly aids students who aim to go directly into industry—biotech, pharmaceuticals, and more—as well as computational biology graduate school. The track has a strong focus and deep integration with life sciences.

Dynamical Modeling Track

The dynamical modeling track seeks to provide students a strong foundation in the use of mathematical and computational models for analyzing biological systems. The modeling approaches are based on a varied set of approaches such as partial differential equations, stochastic equations, dynamical systems theory, stability theory and linear algebra, network theory, cellular automata, and numerical methods. Dynamical models are the heart of the evolution that underpin all of biology and can be applied to disease spread, tumor growth and treatment, wound healing, cell migration, blood flow, ecology, climate change biology, population genetics, evolutionary theory, game theory, and scaling theory. Models are tailored based on the biological and physical details of the system and can often be simplified or used to build intuition based on the associated timescales and spatial dimensions—from cellular signaling and transcriptional regulation to communication between organs through hormones to consumer-resource interactions among species. The track allows students to develop quantitative approaches to interpret complex biological systems and is a gateway towards careers in biotechnology and academia.

Capstone Major

The Computational and Systems Biology major is a designated capstone major. The capstone experience is a senior-level sequence of two courses integrating the discipline via mathematical modeling, simulation, and active research and report writing. Students are expected to demonstrate critical thinking skills and familiarity with research techniques needed to successfully pursue a project in computational and systems biology, conceive and execute a project on which they engage current methods and theory, communicate original scholarly findings to peers both in oral and written form, and work productively with others as part of a team. The experience culminates with completion of the senior thesis requirement.

Learning Outcomes

The Computational and Systems Biology major has the following learning outcomes:

- Demonstrated familiarity with research techniques needed to successfully pursue a research project
- Demonstrated critical thinking skills in mathematics, computation, and quantitative thinking
- Demonstrated critical thinking skills in life science disciplines and biological applications
- Conception and execution of a research project that engages current methods and theory
- Oral and written communication of original scholarly findings to peers
- Productive participation with others as part of a research team

Entry to the Major

Pre-major

Students entering UCLA directly from high school or first-term transfer students who declare the Computational and Systems Biology pre-major at the time of application are automatically admitted.

Current students who were admitted as first-year or transfer students (transfer students must have been admitted under the division of life sciences) may request to declare the pre-major once they have met the following criteria:
1. completed one quarter at UCLA, (2) are in good academic standing, (3) have a minimum cumulative grade-point average (GPA) of 2.0, and (4) have established a pre-major GPA of a minimum of 2.7 by taking at least one pre-major course at UCLA for a letter grade.

Requests to declare the pre-major should be sent by e-mail to the program. For more information, see the program website.

All courses taken for the pre-major must be completed with a grade of C or better. Pre-major course Computer Science 32 is required for students following the Biological Data Sciences track, but does not have to be completed prior to applying to the major. Pre-major courses Program in Computing 10B and 10C, or Computer Sciences 32, are required for students following the Bioinformatics track, but do not have to be completed prior to applying to the major.

All students are identified as pre-majors until they satisfy the preparation for the major requirements by achieving (1) a minimum 2.7 GPA in all pre-major courses, and (2) a minimum grade of C in all pre-major courses.

Transfer Students

Transfer applicants to the Computational and Systems Biology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of general chemistry with laboratory for majors, two years of calculus for majors, one year of calculus-based physics, one year of biology with laboratory for majors, and one programming course using C++, Python, or similar language.

Transfer applicants must meet the same academic requirements as current UCLA students, based on all courses transferred from another institution that satisfy pre-major requirements, and must have completed one 12-unit term of residence in regular session at UCLA.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: A minimum of 66 to 82 units (depending on the calculus series, computer programming courses, and additional requisites for specific concentrations), including Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Computer Science 31 or Program in Computing 10A; Life Sciences 7A, 7B, 7C; Life Sciences 30A, 30B, 40, and Computational and Systems Biology M32 or Mathematics M32T, or Mathematics 31A or 31AL, 31B, and Statistics 10; Mathematics 33A, 33B; Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or Physics 5A, 5B, and 5C.

Students following the bioinformatics track must also complete Computer Science 32 or Program in Computing 10B and 10C.

Students following the biological data sciences track must also complete Computer Science 32. Additional lower-division courses may be requisite to desired track courses.

The Major

The major consists of a methodology core of seven courses (27 units) and a track of five upper-division courses (20 units minimum).

Methodology Core

Required: (1) Computational and Systems Biology M150, M184, 185, (2) one probability course from: Electrical and Computer Engineering 131A, Mathematics 170E, or Statistics 100A, (3) one statistics course from: Biostatistics 100A or Statistics 100B, and (4) two capstone courses from the following options: Computational and Systems Biology M187 and 195, or M187 and 199, or 198A and 198B.

Tracks

Required: A minimum of five courses (20 units minimum) from the tracks listed below. No 199 course may be applied toward any track.

Bioinformatics (at least 20 units): One course selected from Computer Science CM121, CM122, or CM124; two courses selected from Computer Science CM121, CM122, CM124, Ecology and Evolutionary Biology C135, Molecular, Cell, and Developmental Biology CM156, 187AL, Physiological Science 125, or Statistics M254; two life science courses selected from the list below.

Note: Computer Science 32 or Program in Computing 10B and 10C, and Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics M32T) or Mathematics 32A are completed in the pre-major.

Biological Data Sciences (at least 20 units): Three courses selected from Computer Science CM124 (or M226), M146 (or Mathematics 156 or Statistics C161), 161, 168, 180 (or Mathematics 182), Electrical and Computer Engineering C143A, C147, Mathematics 155, 164,
Statistics 101A, or 101C; two life science courses selected from the list below. A maximum of two courses may be from mathematics.

Note: Computer Science 32 is completed in the pre-major.

Dynamical Modeling (at least 20 units): Three courses selected from Computational and Systems Biology M186 (or Computer Science M182), Electrical and Computer Engineering 102, 113, Ecology and Evolutionary Biology C119A, C119B, Mathematics 134 (or 135), 136, 142, 146, 168, or 171; two life science courses selected from the list below. A maximum of two courses may be from mathematics.

Life Sciences Courses (for all three tracks): any two courses selected from the subareas below. Courses may be chosen from different subareas.

Biochemistry: Chemistry 153A, 153B.


Epidemiology: Epidemiology 100, Microbiology, Immunology, and Molecular Genetics 101, 102, 168, C185A.

Genetics and Molecular Biology: Life Sciences 107, Molecular, Cell, and Developmental Biology 139, M140, 144, 165A (or 100).

Neurosystems: Neuroscience M101A (or Psychology 115), M101B, 102, 205, 260, Physiological Sciences C144, Physics C186, Psychology 119M.

Physiology: Bioengineering C102, Biomechanics 206, Ecology and Evolutionary Biology 170 (or Physiological Sciences 166), Physiological Sciences 149.

Honors Program
Students with a grade-point average of 3.5 or better in required major courses and a 3.0 cumulative GPA may apply for admission to the honors program. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior research thesis.

Policies

Preparation for the Major
All courses taken for the Preparation for the Major must be completed with a grade of C or better. Students are allowed to repeat up to two courses for the Major courses in which they receive a C— or worse. Students who receive a third grade of C— or worse in Preparation for the Major courses are dismissed from the program.

The Major
Each course in the major must be passed with a grade of C or better.

Undergraduate Minors

Mathematical Biology Minor
The Mathematical Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. The minor core examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice. Students complete a core curriculum and an elective course. The minor consists of lower-division courses basic to the minor, five core courses, and one elective course that provide the needed background in mathematical biology, molecular and cell biology, statistics and probability, and mathematical modeling and simulation methods for biological systems.

Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental Common Collaboration and Learning Environment (CCLE) web page.

The Minor

Required Lower-Division Course (4 units): Mathematics 33A.

Required Upper-Division Courses (22 units): Chemistry and Biochemistry 153A, M230B, Computational and Systems Biology M184, Microbiology, Immunology, and Molecular Genetics 105, and two elective courses selected from Biostatistics 100A, Chemistry and Biochemistry M117, 156, Electrical and Computer Engineering 102, 115, Statistics 100A, 100B.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Systems Biology Minor
The Systems Biology minor introduces undergraduate students to an active, interdisciplinary, quantitative biosciences research and teaching field at UCLA. It offers a coherent course plan encompassing basic foundations of the field. Beside broadening student knowledge in systems biology, the minor provides students with enhanced perspective about computational and systems biology methods and applications and better prepares students to make more informed choices about their future directions and careers. The minor consists of lower-division courses basic to the minor, a survey seminar course, four core courses, and one elective course that provide the needed background in molecular and cell biology, computational and systems engineering, and mathematical modeling and simulation methods for biological systems.

Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental Common Collaboration and Learning Environment (CCLE) web page.
ration and Learning Environment (CCLE) web page.

The Minor

Required Lower-Division Courses (8 units): Mathematics 33A, 33B.

Required Upper-Division Courses (24 units): Computational and Systems Biology M184, M186, 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

10. Preparation for Research in Computational Biology. (3) Lecture, two and one half hours. Provides students with basic understanding of several computational tools used in molecular biology research. Focus on practical application of these tools rather than deep theoretical understanding. Creates more inclusive and accessible experience for learners. Students are introduced to computational tools for carrying out research in computational biology, including basic statistics, Python, R, and UNIX. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

M32. Essential Calculus for Mathematical Biologists. (4) (Same as Mathematics M32T and Life Sciences M32.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 30A, 30B. Not open to students with credit for Mathematics 31A, 31B, 32A, or 32B. Designed for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities 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 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.

189A, 189B. Honors Research in Computational and Systems Biology. (4–4) Tutorial, 12 hours. Maximum of 4 units of 189A can be applied toward major. Individual contract required. P/NP grading.

198A-198B. Honors Research in Computational and Systems Biology. (4) Formerly numbered M185.) Lecture, two hours; discussion, two hours. Requisites: consent of instructor, Life Sciences 33A, 33B. Introduction to interdisciplinary laboratory research methods and research opportunities in computational and systems biology to prepare and initiate students for active engagement in research. Presentation of potential projects by faculty members and students visits to individual laboratories and participation in ongoing projects. P/NP or letter grading.

M189. Computational Systems Biology. Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering CM186, Computer Science CM186, and Ecology and Evolutionary Biology 189.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 32A or M32T, 33A, and 33B; or Mathematics 31A, 31B, 32A or M32T, 33A, and 33B. Dynamic bio-systems and modeling and simulation methods for studying biological/ biomedical processes and systems at multiple levels of organization. Intermediate linear and nonlinear control system, multicomponent, epidemiological, and other biomodeling methods applied to life sciences problems at molecular, cellular, organ, and population levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into dynamical mathematical models, and implementing them for simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms with global discriminance and analysis and software exercises in PC laboratory assignments. Letter grading.
and Systems Biology students. Supervised individual research involving extensive reading and development of honors thesis or comprehensive project under guidance of faculty mentor. In Progress grading (credit to be given on completion of course 198B). 198B. Requisite: course 198A. Continued reading and research culminating in honors thesis under direct supervision of faculty member. Letter grading.

### 199. Directed Research in Computational and Systems Biology
(4) Tutorial. 12 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating report/thesis required. May be repeated for credit. Four units may be applied toward major requirements. Individual contract required. Letter grading.

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### Computational Medicine

**David Geffen School of Medicine**

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**Computational Medicine**

310-825-5554

**Department e-mail**

Eleazar Eskin, PhD, Chair

Bogdan Pasaniuc, PhD, Vice Chair

Eric M. Sobel, PhD, Vice Chair

**Education**

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### Faculty Roster

#### Professors

- Douglas S. Bell, MD, PhD, *in Residence*
- Thomas Chou, PhD
- Jason Ernst, PhD
- Eleazar Eskin, PhD
- Eran Halperan, PhD
- Kenneth L. Lange, PhD (*Maxine and Eugene Rosenfeld Endowed Professor of Computational Genetics*)
- Alexander J. Levine, PhD
- Gang Li, PhD
- James O. Lloyd-Smith, PhD
- Loes Olde Loohuis, PhD
- Nanyun Violet Peng, PhD
- Zhilin Qu, PhD, *in Residence*
- Marcus L. Roper, PhD
- Van M. Savage, PhD
- Janet S. Sinhaheimer, PhD
- Eric M. Sobel, PhD, *in Residence*
- Marc A. Suchard, MD, PhD
- Wei Wang, PhD
- Hua Zhou, PhD

#### Professors Emeriti

- Abdelmonem A. Affifi, PhD
- Henry S.C. Huang, DSc
- Robert I. Jennrich, PhD
- Elliot M. Landaw, MD, PhD

#### Associate Professors

- Valerie Arboleda, MD, PhD, *in Residence*
- Bogdan Pasaniuc, PhD
- Noah A. Zaitlen, PhD

- **Assistant Professors**
  - Jingyi Jessica Li, PhD
  - Harold J. Pimentel, PhD
  - Sriram Sankaranarayanan, PhD
  - Daniel J. Tward, PhD
  - Bolei Zhou, PhD

- **Adjunct Professors**
  - David Elashoff, PhD
  - Jeffrey A. Gornbein, DrPH

- **Adjunct Associate Professors**
  - Jeffrey N. Chiang, PhD
  - Maria-Rita R. D’Orsogna, PhD
  - Veena K. Ranganath, MD
  - Mary E. Sehl, MD, PhD

#### Clinical Research MS

**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.

### Biomedical Informatics

#### 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

- 170A. Introductory Biostatistics for Medical Investigators. (4) Lecture, three hours; discussion, one hour. Intensive elementary statistics course emphasizing design and applications to observational studies and experimental/clinical trials. Statistical topics include study design, descriptive statistics, elementary probability and distributions, confidence intervals and hypothesis testing, sample size and power, linear regression and correlation, analysis of variance, nonparametric statistics. Applications to biomedical literature and design of clinical trials. Letter grading.

- 189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through 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.

- 190HA-190HB. Honors Research in Biostatistics. (4-4) Tutorial, to be arranged. Limited to juniors/seniors. Individual research in some aspect of biostatistics designed to acquaint students in depth with statistical models and computer applications in biology. Must be taken for at least two terms and for total of at least 8 units. Thesis required. P/NP or letter grading.

- 197. Individual Studies in 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.

### Biostatistics

#### Graduate Majors

- **Biostatistics MS, PhD**

#### 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 Course**
200B. Frontiers and Methods in Mathematical Systems. (4) Lecture/seminar, four hours. Introduction to cutting-edge research in mathematical biology. Emphasizes critical thinking through critique of research. Trains students in scientific writing and presentation skills, comprehensive reports, figure preparation and slide development. Letter grading.

201. Deterministic Models in Biology. (4) Lecture, three hours; laboratory, three hours. Preparation: knowledge of linear algebra and differential equations. Examination of models under which deterministic approaches can be employed and conditions where they may be expected to fail. Topics include compartmental analysis, enzyme kinetics, physiological control systems, and systems of populations. Students may take either and are encouraged to take both. S/U or letter grading.


M203. Stochastic Models in Biology. (4) Same as Human Genetics M207B. Lecture, four hours. Preparation: Mathematics 170A or equivalent experience in probability. Mathematical description of biological relationships, with particular attention to areas where conditions suggest that approximation with deterministic models are adequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. (4) Lecture, four hours. Requisite: at least one course in probability or statistics that included basic probability, elementary distributions, hypothesis testing, and confidence intervals. Knowledge of elementary calculus. Familiarity with elementary computer programming is strongly preferred. Modern scientific research and quality and quantity of data have been greatly affected by the explosion of statistical computing software. Problem-oriented study of latest methods in applied statistical data analysis and its use arising in laboratory and clinical research. S/U or letter grading.


M207A. Theoretical Genetic Modeling. (4) Same as Biostatistics M272 and Human Genetics M207A.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design elements, and DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) Same as Biostatistics M237 and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 200B, 238A may be taken concurrently or equivalent coursework or consent of instructor. Covers basic genetic concepts (prior knowledge of human genetics not required). Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M207A; students may take either and are encouraged to take both. S/U or letter grading.

208. Geometric Methods in Medical Imaging. (4) Lecture, four hours. Recommended preparation: under- graduate calculus, linear algebra, probability. Overview of mathematical and computational techniques to study geometric objects underlying medical images. Includes curves, surfaces, sizes, shapes, and diffusion tensors that describe cells, tissues, and organs. S/U or letter grading.

209. Mechanisms and Modeling in Bioanalytical Assays. (4) Lecture, three hours; Preparation: knowledge of fundamental concepts of statistics and 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, ChIP-sequencing, 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 language such as Fortran or C. Modern computational biology relies heavily on finite-dimensional optimization and numerical methods for discrete and continuous optimization, with applications from genetics, medical imaging, pharmacokinetics, and statistics. S/U or letter grading.

M211. Mathematical and Statistical Phylogenetics. (4) Same as Biostatistics M239 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Preparation: undergraduate course in statistics and probability. Theoretical models in molecular evolution focusing on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeography and coalescent approaches. Examples provided from evolutionary biology, molecular epidemiology, and plant biology. Focus on implications for human disease processes. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

M212. Evolutionary Ecology. (4) Same as Ecology and Evolutionary Biology M232.) Lecture, two and one half hours. Requisites: Ecology and Evolutionary Biology M200A or 200B, or equivalent. Concepts and topics include fundamental concepts of evolutionary ecology, including life history theory, quantitative genetics and phenotypic evolution, and advances made in field in last decade. May be repeated for credit. Letter grading.


227. Multivariable Calculus for Biologists. (4) Same as Biostatistics 232B.) Lecture, three hours; laboratory, two hours. Preparation: one course from Biostatistics 100A, 110A, or equivalent coursework in mathematics or statistics. Preparation: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170B, 170C, 170E, or other with emphasis on mathematical analysis and linear algebra; probability. S/U or letter grading. Letter grading.

228. Multivariable Calculus for Biologists. (4) Same as Biostatistics 232B.) Lecture, three hours; laboratory, two hours. Preparation: one course from Biostatistics 100A, 110A, or equivalent coursework in mathematics or statistics. Preparation: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170B, 170C, 170E, or other with emphasis on mathematical analysis and linear algebra; probability. S/U or letter grading. Letter grading.


M234. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biomedical applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

M235. Conditioned Matter Physics of Cells. (4) (Same as Physics M243L.) Seminar, four hours. Designed for graduate students. Basic paradigms of course material in physics and biology, with an emphasis on computer simulations and the analysis of critical phenomena. Topics include forces and stress, cell dynamics, and stimulated calculations and applications of statistical mechanics and other topics. S/U or letter grading.

M237. Computational Methods for Biostatistical Research. (4) (Same as Biomathematics M237.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200A, 200B, Mathematics 170A, 170B, 170E, or equivalent. Preparation for quantitative research in statistics and data sciences. Numerical analysis and hands-on computing techniques for handling big data. Numerical analysis topics include computer arithmetic, solving linear equations, Cholesky factorization, QR factorization, regression computations, eigenvalue problems, iterative solvers, numerical optimization, and design and analysis of statistical simulation experiments. Computing techniques include basics of R programming, reproducible research using R and RStudio, collaborative research, parallel computing, and cloud computing. Laboratory. S/U or letter grading.

M250A-M260B. Methodology in Clinical Research I, II, III. (4) (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental 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.

M260A-M260B. Methodology in Clinical Research I, II, III. (4) (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental 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.

M260A-M260B. Methodology in Clinical Research I, II, III. (4) (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental 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.
search, 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 M230.) Lecture, two hours; discussion, one hour. Presentation of various types of scientific writings and their good practice. Details of specific types of articles: methods, results, discussion. Writing of review articles. Grant submissions: aims, background, results, design. Role of appendices. Communication with lay public. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Medicine M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health science courses deemed M2D, DDS, DVM, 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.

264. Applied Data Collection and Analysis. (4) Lecture, four hours. Presentation of research project development, including protocol development, data collection, quality control, clinical/electronic health record (EHR) data, structuring data for analysis, and data archival. Lectures, in-class practices using actual studies and datasets, and student presentations. Letter grading.

265A. Data Analysis Strategies I. (4) Lecture, two hours; laboratory, two hours. Preparation: MD or PhD degree. Requisite: course 170A. Designed to provide students with hands-on experience developing and testing hypotheses using various types of databases. Topics include: data collection, hypothesis formulation, data management, and analysis strategies and written presentation of findings. Experience with full process of hypothesis generation, operationalization of variables, selection of analysis techniques, and presentation of findings so students are better prepared to complete data analysis, interpretation of results, and written presentation of their findings (e.g., for master's thesis and subsequent publications). Students are encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

266A. Applied Regression Analysis in Medical Sciences. (4) Lecture, three hours; laboratory, one hour. Requisite: course 170A. Proficiency in applied regression analysis, with focus on interpretation of results and performing computation. Primary topics include simple linear regression, multiple regression, regression model selection, analysis of variance, logistic regression, and survival analysis. Letter grading.

266B. Advanced Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 266A. Continuation of course 266A. Some traditional multivariate methods, such as principle components, factor analysis, cluster analysis, and other contemporary methods, including recursive partitioning and missing data. Multilevel and longitudinal analysis. Letter grading.

M270. Optimal Parameter Estimation and Experiment Design in Biochemical Systems. (4) (Same as Bioengineering 296B, Computer Science 296B, and Medicine M270D) Lecture, four hours; outside study, eight hours. Requisite: course 220 or Bioengineering CE 296 or M296A. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M271. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics 223 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: Bioinformatics 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.


M282. Longitudinal Data. (4) (Same as Biostatistics M236.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 200B or another substantial regression course. Analysis of continuous responses for which multivariate normal model may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include introduction to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.

M284. Methodology of Clinical Trials. (4) (Same as Biostatistics M238.) Lecture, three hours; discussion, one hour. Requisite: Biostatistics 200B. Introductory material on design and analysis of clinical trials, including adaptive methods for early and late randomized trials. S/U or letter grading.

285. Introduction to High-Throughput Data Analysis. (4) Seminar, three hours. Requisites: courses M260A, M260B. Introduction to high-throughput data analysis, including DNA microarray technologies and next-generation sequencing technology. Presentation of statistical methods and software for handling complex data produced by experiments using these technologies. Some hands-on training on data analysis provided. S/U or letter grading.

299. Special Topics in Clinical Research. (2 to 6) Seminar, three hours. Requisite: courses M260A, M260B. Advanced study and analysis of current topics in clinical research. Discussion of current research and literature in research specialty of faculty member teaching course. Content varies from term to term and may include lectures from visiting scientists. May be repeated for credit with consent of instructor. S/U or letter grading.


597. Preparation for MS or PhD Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Individual study. S/U or letter grading.


COMPUTER SCIENCE

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Computer Science
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Overview

Computer science is concerned with the design, modeling, analysis, and applications of computer systems. Its study at UCLA provides education at the undergraduate and graduate levels necessary to understand, design, implement, and use the software and hardware of computers and digital systems. The programs offer comprehensive and integrated studies of subjects in computer system architecture, computer networks, distributed computer systems, programming languages and software systems, information and data management, artificial intelligence, computer science theory, computational systems biology and bioinformatics, and computer vision and graphics.

The undergraduate and graduate studies and research projects in the Department of Computer Science are supported by significant computing resources. In addition to the departmental computing facility, there are over a dozen research laboratories specializing in areas such as distributed systems, multimedia computer communications, distributed sensor networks, VLSI systems, VLSI CAD, embedded and reconfigurable systems, computer graphics, bioinformatics, and artificial intelligence. Also, the Cognitive Systems Laboratory is engaged in studying computer systems that emulate or support human reasoning. The Biocybernetics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

Undergraduate Majors

Computer Science and Engineering BS

The Computer Science and Engineering curriculum at UCLA provides students with the education and training necessary to design, implement, test, and utilize the hardware and software of digital computers and digital systems. The curriculum has components spanning both the Computer Science and Electrical and Computer Engineering departments. The curriculum covers all aspects of computer systems from electronic design through logic design, MSI, LSI, and VLSI concepts; device utilization, machine language design, implementation and programming, operating system concepts, systems programming, networking fundamentals, and higher-level language skills; and their application. Students are prepared for employment in a wide spectrum of high-technology industries.

The computer science and engineering program is accredited by the Computing Accreditation Commission and the Engineering Accreditation Commission of ABET.

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 as part of a team; identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.

Requirements

Preparation for the Major

Required: Computer Science 1, 31, 32, 33, 35L, M51A; Electrical and Computer Engineering 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major

Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181, Electrical and Computer Engineering 100, 102, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; one capstone design course (Computer Science 152B); a minimum of 4 units and one elective course selected from Electrical and Computer Science 101A through M185; a minimum of 12 units and three elective courses selected from Computer Science 111 through CM187, and up to 8 units of Computer Science 188; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

Students who want to deepen their knowledge of electrical engineering are encouraged to select that discipline as their technical breadth area.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Policies

The Major

Credit is not allowed for both Computer Science 170A and Electrical and Computer Engineering 133A unless at least one of them is applied as part of the technical breadth area. Electrical and Computer Engineering 110, 131A, and CM182 may not satisfy elective credit. A petition may be submitted to consider four units of Computer Science 194 or 199 for an elective. Credit is not guaranteed and subject to vice chair review.

A multiple-listed (M) course offered in another department may be used instead of the same computer science course (e.g., Electrical and Computer Engineering M116C may be taken instead of Computer Science M151B). Credit is applied automatically.

Computer Science BS

The Computer Science curriculum is designed to accommodate students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The curriculum consists of components in computer science, a minor or technical support area, and a core of courses from the social sciences, life sciences, and humanities. Within the curriculum, students study subject matter in software engineering, principles of programming languages, data structures, computer architecture, theory of computation and formal languages, operating systems, distributed systems, computer modeling, computer networks, compiler construction, and artificial intelligence. Majors are prepared for employment in a wide range of industrial and business environments.

The computer science program is accredited by the Computing Accreditation Commission of ABET.

Capstone Major

The Computer Science major is a designated capstone major. Computer Science and Engineering students complete a major product design course. Graduates are expected to apply the basic mathematical and scientific concepts that underlie modern computer science and engineering; design a software or digital hardware system, component, or process to meet desired needs within realistic constraints; function productively with others as part of a team; identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.
identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.

Learning Outcomes
The Computer Science major has the following learning outcomes:

- Application of basic mathematical and scientific concepts that underlie the modern field
- Design of a software or digital hardware system, component, or process to meet desired needs within realistic constraints
- Function productively with others on a team, including those with different specialties within the field
- Identification, formulation, and solution of computer software- and hardware-related engineering problems
- Effective communication

Requirements
Preparation for the Major
Required: Computer Science 1, 31, 32, 33, 35L, M51A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; one capstone software engineering or design course from Computer Science 130 or 152B; a minimum of 20 units and five elective courses selected from Computer Science 111 through CM187, and up to 8 units of Computer Science 188; a minimum of 12 units and three science and technology courses (not used to satisfy other requirements) that may include 12 units of upper-division computer science courses or 12 units of courses selected from an approved list available in the Office of Academic and Student Affairs; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Policies
The Major
Students must take at least one course from Computer Science 130 or 132. Computer Science 130 or 152B may be applied as an elective only if it is not taken as the capstone course.

Credit is not allowed for both Computer Science 170A and Electrical and Computer Engineering 133A unless at least one of them is applied as part of the science and technology requirement or as part of the technical breadth area. A petition may be submitted to consider four units of Computer Science 194 or 199 for an elective. Credit is not guaranteed and subject to vice chair review.

A multiple-listed (M) course offered in another department may be used instead of the same computer science course (e.g., Electrical and Computer Engineering M116C may be taken instead of Computer Science M151B). Credit is applied automatically.

Computer Engineering BS
The undergraduate curriculum provides all computer engineering students with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the discipline in the major areas of data science and embedded networked systems. These collectively provide an understanding of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/wearable/implantable systems, robotic systems, and more generally in smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Capstone Major
The Computer Engineering major is a designated capstone major that is jointly administered by the Computer Science and Electrical and Computer Engineering, departments. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Students identify, formulate, and solve engineering problems and present their projects to the class.

Learning Outcomes
The Computer Engineering major has the following learning outcomes:

- Application of mathematical, scientific, and engineering knowledge
- Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
- Function productively on a team with others
- Identification, formulation, and solution of computer engineering problems
- Effective communication

Requirements
Preparation for the Major
Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering M16); Electrical and Computer Engineering 3; Engineering 96L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118 (or Electrical and Computer Engineering 132B), M151B (or Electrical and Computer Engineering M116C), M152A (or Electrical and Computer Engineering M116L), 180; Electrical and Computer Engineering 100, 102, 113, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, Statistics 100A; 8 units of computer science and 8 units of electrical and computer engineering upper-division electives; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 8 units capstone design from either Electrical and Computer Engineering 180DA/180DB or 183DA/183DB.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Undergraduate Minors
Bioinformatics Minor
The Bioinformatics minor introduces undergraduate students to the emerging interdisciplinary field of bioinformatics, an active area of research at UCLA combining elements of the computational sciences with the biological sciences. The minor organizes the many course offerings in different UCLA departments into a coherent course plan providing students with significant training in bioinformatics in addition to the training they obtain from their major. Students who complete the minor will be strong candidates for admission to PhD programs in bioinformatics as well as have the relevant training to obtain jobs in the biotechnology industry.

Students complete a core curriculum and an elective course and are strongly encouraged to participate in undergraduate research as early as possible in one of the many groups offering research opportunities in bioinformatics.

Admission
To enter the minor, students must be (1) in good academic standing (2.0 grade-point average or better), (2) have completed at least two of the lower-division requirements with minimum grades of C, and (3) file a petition in the Office of Academic and Student Affairs of the Henry Samueli School of Engineering and Applied Science, 8426 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 Com-
Computer Science / 351

Required Lower-Division Courses (8 units): Computer Science 32, Mathematics 33A.

Required Upper-Division Courses (12 units minimum): One course from Civil and Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; Computer Science 148 or Electrical and Computer Engineering 148; Computer Science 145 or M146 or Computer Engineering M146.

Elective Upper-Division Courses (8 units minimum): Two courses from Computer Science M119, CM121, CM122, CM124, 143, 145 or M146 (if not taken as a required course). 161, 180, M182, Electrical and Computer Engineering 102, 113, 114, M119, 133A, M146 (if not taken as a required course), C147, 183DA and 183DB (both must be taken), Mechanical and Aerospace Engineering C137, 185, Statistics 100B, 115, 170, or C180.

Policies
Variable topics courses may be taken as topics apply.
Transfer credit for any of the above is subject to approval; consult with the undergraduate counselors before enrolling in any courses for the minor.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
All minor courses must be taken for a letter grade.
Each minor course must be taken for a letter grade, and student must have a minimum grade of C in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major Computer Science MS, PhD Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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.

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 sequence (courses 31, 32, 33). Teaches students how to use computers as tools for problem solving, creativity, and exploration through design and implementation of computer programs. Key topics are data types including integers, strings, and lists; control structures, including conditionals and loops; and functional decomposition. Letter grading.
31. Introduction to Computer Science I. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to computer science via theory, applications, and programming. Basic data types, operators and control structures. Input/output, procedural and data abstraction. Introduction to object-oriented software development. Functions, recursion, arrays, strings, pointers. Abstract data types, object-oriented programming. Examples and exercises from computer science theory and applications. Letter grading.
33. Introduction to Computer Organization. (5) Lecture, four hours; discussion, two hours; outside study, nine hours. Enforced requisite: course 32. Introductory course on computer architecture, assembly language, and operating systems fundamentals. Number systems, machine language, and assembly language. Procedure calls, stacks, interrupts, and traps. Assemblers, linkers, and loaders. Operating systems concepts: processes and process management, input/output (I/O) programming, memory management, file systems. Letter grading.
35L. Software Construction. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required course 31. Fundamentals of tools and environments for software construction projects, particularly open-source platforms used in upper-division computer science courses. Software practice through collaborative student project. Letter grading.
M51A. Logic Design of Digital Systems. (4) (Same as Electrical and Computer Engineering M161.) 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. Topics may vary. 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 regular classes. 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 seniors/seniors. Probability and stochastic process models as applied in computer science. Basic methodological tools include random variables, conditional probability, expectation and higher moments, Bayes theorem, Markov chains. Applications include probabilistic algorithms, evidential reasoning, analysis of algorithms and data structures, reliability, and protocol design and queueing models. Letter grading.

117. Computer Networks: Physical Layer. (4) (Formerly numbered M117L.) Lecture, two hours; discussion, two hours; laboratory, two hours; outside study, six hours. Not open to students with credit for course M117L. Introduction to fundamental computer communication concepts underlying and supporting modern networks, with focus on wireless communications and protocols to support high-speed wireless network access. Systems include wireless LANs (IEEE802.11) and ad hoc wireless and personal area networks (e.g., Bluetooth, ZigBee). Experimental project based on mobile radios and personal devices (smart phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, and environment 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 to design and perform evaluation of computer networks, including such topics as what protocols are, layered network architecture, Internet protocol architecture, network applications, routing algorithms, network protocols, internetworking, congestion control, and layer protocols including Ethernet and wireless channels. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Same as Electrical and Computer Engineering M119L.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 33, 118 or Electrical and Computer Engineering 132B; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, Statistics 100A. Design trade-offs and principles of operation of cyber physical systems and their elements constituting Internet of Things. Topics include signal propagation and modeling, sensing, node architecture and operation, and applications. Letter grading.

CM121. Introduction to Bioinformatics. (4) (Same as Chemistry CM160A) Lecture, four hours; discussion, two hours. Enforced requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM221. P/NP or letter grading.

CM122. Algorithms in Bioinformatics. (4) (Same as Chemistry CM160B) Lecture, four hours; discussion, two hours. Enforced requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Course CM121 is not requites to CM122. Designed for engineering students as well as students from biological sciences and medical school. Introduction 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 CM222. Letter grading.

CM124. Machine Learning Applications in Genetics. (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, Bayes theorem, Markov chains. Applications include probabilistic algorithms, evidential reasoning, analysis of algorithms and data structures, reliability, and protocol design and queueing models. Letter grading.

CM134. Distributed Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 111, 118. Covers fundamental concepts and implementation of distributed systems. Topics include synchronization (e.g., clock synchronization, logical clocks, vector clocks), failure recovery (e.g., snapshotting, primary-backup), consistency models (e.g., linearizability, eventual, causal), consensus protocols (e.g., Paxos, Raft), distributed transactions, and lock. Students gain hands-on practical experience through multiple programming assignments that will require creating fault-tolerant, shared key/value store. Exploration of how these concepts have manifested in several real-world, large-scale distributed systems used by Internet companies like Google, Facebook, and Amazon. Letter grading.

136. Introduction to Computer Security. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 118. 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 models and architectures, security threats, and risk analysis, cryptography, authentication, authorization, network security, secure application design, and ethics and law. Letter grading.

C123. 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 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 structural properties of each language and the challenges of aligning one another. Hands-on experience implementing new abstractions, both as stand-alone languages and as libraries in existing languages. Concurrently scheduled with course C223. Letter grading.

C137B. Programming Language Design. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course C137A. Study of various programming language designs, from computing history and research to practices that attempt to address problems of software systems that are bloated, buggy, and difficult to maintain and extend despite trend in computing toward ever higher levels of abstraction for program maintenance. Hands-on skill in concept design, prototype typing, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C237B. Letter grading.

144. Web Applications. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 143. Important concepts and theory 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.

145. Introduction to Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 143. Introductory survey of data mining (process of automatic discovery of patterns, characteristics, and rules useful within given data sets from large multi-dimensional databases), knowledge engineering, and wide spectrum of data mining application areas such as bioinformatics, e-commerce, environmental studies, financial markets, multimedia data processing, network monitoring, and social service analysis. Letter grading.

M146. Introduction to Machine Learning. (4) Same as Electrical and Computer Engineering M148.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32 or Program in Computing 10C; Civil and Environmental Engineering 110 or Electrical Engineering 131A, Mathematics 170A or 170E or Statistics 100A; Mathematics 33A. Introduction to breadth of data science. Foundations for modeling data sources, principles of operation of various methods 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.

M148. Introduction to Data Science. (4) Same as Electrical and Computer Engineering M116C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32 or Program in Computing 10A, 10B, and one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A. How to analyze data arising in real world so as to understand corresponding phenomenon. Covers topics in machine learning, data analytics, 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, modeling, model selection and prediction methodologies. Letter grading.

M151B. Computer Systems Architecture. (4) Same as Electrical and Computer Engineering M116C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 33, and M51A or Electrical and Computer Engineering M16. Recommended: courses 111, and M152A or Electrical and Computer Engineering M116L. Computer system organization and design, implementation of CPU datapath and control, instruction set design, memory hierarchy (caches, main memory, virtual memory) organization and management, input/output (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.

M152A. Introductory Digital Design Laboratory. (2) Same as Electrical and Computer Engineering M116L.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M51A or Electrical and Computer Engineering M16. Hands-on design, implementation, and debugging of digital logic circuits, microprocessors, and small systems. Computer-aided design tools for logic synthesis, automatic capture and simulation, implementation of complex circuits using programmed array logic, design projects. Letter grading.

152B. Digital Design Project Laboratory. (2) Laboratory, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M151B or Electrical Engineering M116C. Recommended: Engineering 16GEW or 16GEW. Limited to seniors. Design and implementation of complex digital subsystems using field-programmable gate arrays (e.g., processors, special-purpose processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. 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 artificial intelligence representation paradigms of artificial intelligence. Introduction to Lisp with regular programming assignments. State-space and problem reduction methods, state-space search, knowledge-based techniques, two-player games. Knowledge structures including predicate logic, production systems, semantic nets and primitives, frames, scripts. Special topics in artificial intelligence. Prerequisites: M146, knowledge of programming, vision, and parallel architectures. Letter grading.

168. Computational Methods for Medical Imaging. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32 or Program in Computing 10C with grade of C- or better. Mathematics 33A, one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A. Theory and practice of image acquisition including angiography, computed tomography (CT), and magnetic resonance (MR). Project-based course covers applied computational imaging methods, including 2D and 3D imaging and visualization; predictive modeling, personalized medicine, data driven and machine learning methods. Letter grading.


171L. 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. Enforced requisite: course M152A. Limited to seniors. Not open to students with course credit for M117L. Interpretation of analog-signal aspects of digital systems and data communications through experience in using contemporary test instruments and equipment in relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, data acquisition systems, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modern and terminal characteristics, and interfaces. Letter grading.

172. Real-Time Three-Dimensional Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32. Introduction to handling of geometry, appearance, and motion specifically for real-time virtual environments, both on theoretical and practical levels. Completion of one quality real-time three-dimensional animation by following through from preproduction to postproduction. Each product expected to be game-ready in relevant laboratory setups. Use of oscillators, pulse and function generators, baseband spectrum analyzers, data acquisition systems, PCs, and workstations in experiments on pulse transmission impairments, waveforms and their spectra, modern and terminal characteristics, and interfaces. Letter grading.

183. Introduction to Cryptography. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. State of the art in three-dimensional computer graphics rendering. How to use cameras and light to capture shape and appearance of real objects and scenes. Process provides simple way to acquire three-dimensional images. Prerequisites: programming experience, computer graphics, and basic concepts and applications of techniques from entertainment (reverie engineering and postprocessing of movies, generation of realistic synthetic objects and characters) to medicine (modeling of biological structures from imaging data), mixed reality (augmentation of video), and security (visual surveillance). Fundamental analytical tools for measuring and examining geometric (shape) and photometric (reflectance, illumination) properties of objects and scenes, and for rendering and manipulating novel views. Letter grading.


M182. Dynamic Biosystem Modeling and Simulation Methodology. (4) (Same as Bioengineering 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. Recommended requisite or corequisite: Mathematics 33C, 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, including complete and state-free languages and pushdown story automata. Unrestricted rewriting systems, recursively enumerable and recursive languages, and Turing machines. Complexity properties, pumping lemmas, and decision algorithms. Introduction to computability. Letter grading.
techniques. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom permutations, semantic security, public-key and private-key encryption, key agreement, homomorphic encryption, oblivious transfer, retrieval and voting protocols, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, and two-party secure computation with static security. Letter grading.

M1914. Introduction to Computational and Systems Biology. (2) (Same as Bioengineering M184 and Computational and Systems Biology M184.) Lecture, two hours; outside study, four hours; laboratory, Enforced corequisite: one course from 31, Civil Engineering M20, 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 biology 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. Prerequisites: Individual UCLAricha discussing their active computational and systems biology research. P/NP grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (3) (Same as Bioengineering M186 and Computational and Systems Biology M186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 31A, 31B, 32A, 32B, or Mathematics 3A 31A, 31B, 32A or M32T, 33A, and 33B. Dynamic biosystem modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Intermediate and nonlinear control system, multi-componental, epidemiological, pharmacokinetic, and other biomodeling methods applied to life sciences problems in molecular, cellular, organ, and systems level. Theory and data-driven modeling, with focus on translating biomodeling goals and data into dynamical mathematical models, and implementing them for simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model discrimination and analysis and software exercises in PC laboratory. Assumed background. Concurrently scheduled with course CM286. Letter grading.

CM187. Research Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM187 and Computational and Systems Biology M187.) Lecture, four hours; outside study, eight hours. Requisites: course M182 or CM186 or Computational and Systems Biology M150; and research experience (course 198, Bioengineering 199, Computational and Systems Biology 199, or equivalent). Closely directed, interactively, 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 present research results. Majors in research emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM287. Letter grading.

188. Special Courses in Computer Science. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Special topics in computer science for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty, may be repeated for credit with topic or instructor 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 supervised by faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Enforced corequisite: course 212A. 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.

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 in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated for credit. Letter grading.

M192A. Introduction to Collaborative Learning Theory and Practice. (1) (Formerly numbered 192A.) (Same as Chemistry M192E, Life Sciences M192A, Mathematics M192A, and Physics M192B.) 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 frequent assessment of and feedback on progress. Letter grading.

194. Research Group Seminars: Computer Science. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field 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 study under guidance of faculty mentor. Culumminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available from Office of Academic and Student Affairs. 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. SU grading.

202. Advanced Computer Science Seminar. (4) Seminar, four hours; outside study, eight hours. Prepara- ration: completion of major field examination in com- puter science and successful research results. Major research into theory of, analysis and synthesis of, 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 131, 186, and 205. Health Analytics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for design of embedded systems. Topics include hardware and software platforms for embedded systems, techniques for modeling and specification of system behavior, software organization, real-time operating system scheduling, communication and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault tolerance and debugging, and techniques for hardware and software architecture optimization. Theoretical foundations as well as practical design methods. Letter grading.

213B. Energy-Aware Computing and Cyber-Physical Systems. (4) (Same as Electrical and Computer Engineering M202D.) Lecture, four hours; outside study, eight hours. Requisite: course M51A or Electrical and Computer Engineering M16. Requisite: one course 111, and Computer Engineering M116C. System-level manage- ment and cross-layer methods for power and energy consumption in computing and communication at various scales ranging across embedded, mobile, personal, enterprise, and datacenters; scalable computing, networking, sensing, and control technologies and algorithms for improving energy sustainability in human-computer-physical systems. Topics include modeling of energy consumption, energy sources, and energy storage; dynamic power management; power-perfor- mance scaling and energy proportionality; duty-cy- cling; power-aware scheduling; low-power design; battery modeling and management; thermal manage- ment; sensing of power consumption. Letter grading.

214. Big Data Systems. (4) Lecture, four hours; dis- cussion, two hours; outside study, six hours. Enforced prerequisites: course 111. Modern computing era of big data. Introduction to concepts and state-of-the-art in modern big data systems. Study of distributed storage and database systems, which provide foundation for other systems. Discussion of systems built for specific kinds of workloads, such as processing of streaming data, relational data, batched data, graph data, as well as machine learning. Letter grading.

216. Network Algorithmics. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Enforced prerequisites: course 211. Introduction to algorithms for routers and servers. Models of network devices and hardware design. Principles for efficient implementations (exact match, prefix lookups, advanced cardiac life support), fair queueing implementations, crossbar and
217A. Internet Architecture and Protocols. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 116. Focus on mastering existing core of Internet technologies, including IP, core transport protocols, routing protocols, DNS, NTP, and security protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

217B. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 217A. Students. Overview of Internet development history and fundamental principles underlying TCP/IP protocol design. Discussion of current Internet research topics, including latest research results in routing protocols, transport protocols, network measurements, network security protocols, and clean-slate approach to network architecture design. Fundamental issues in network protocol design and implementations. Letter grading.


219. Current Topics in Computer System Modeling Analysis. (4) Lecture, eight hours; outside study, four hours. Emphasizes research in areas of the computer system modeling analysis in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with consent of instructor. Letter grading.

CM221. Introduction to Bioinformatics. (4) Same as Bioinformatics M221, Chemistry CM260A, and Human Genetics CM261. Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM121. S/U or letter grading.

CM222. Algorithms in Bioinformatics. (4) Same as Bioinformatics M222 and Chemistry CM260B. Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Course CM221 is not requisite to CM222. Designed for engineering students as well as students from biological sciences and medical school. Development and computational validation of algorithms to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Concurrently scheduled with course CM222. Letter grading.

CM224. Machine Learning Applications in Genet- ics. (4) Same as Bioinformatics M224 and Computer Science CM224L. Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C- or better, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inference human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving these problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

M225. Computational Methods in Genomics. (4) Same as Bioinformatics 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 biology. Introduction to foundations of the equality-reachability analysis, subset-based analysis, flow-insensitive and flow-sensitive analysis, context-insensitive and context-sensitive analysis. Soundness proofs for static analyses. Efficient data structures for static analysis information such as directed graphs and binary decision diagrams. Flow-directed method inlining, type inference, method inlining, synchronization optimization, deadlock detection, security vulnerability detection. Formal specification and implementation of variety of static analyses, as well as readings from recent research literature on modern applications of static analysis. Letter grading.

233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Mutual exclusion and resource allocation in distributed systems; primitive synchronization: mutual exclusion, specification of parallelism, interprocess communication and synchronization, atomic actions, binary and multeway rendezvous; asynchronous and synchronous algorithms. Topics: Spin Lock, Linda, lock-free, and introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requisites: course 161, 131. Introduction to theory and practice of formal methods used for reasoning about and verifying concurrent programs. Topics include safety, liveness, program and state assertion-based techniques, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and the specification for selected parallel languages. Letter grading.

234. Computer-Aided Verification. (4) Lecture, four hours; outside study, eight hours. Requisites: course 111. Formal techniques for verification of concurrent programs. Topics include safety, liveness, program and state assertion-based techniques, weakest precondition semantics, Hoare logic, temporal logic, UNITY, and the specification for selected parallel languages. 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), hardware and software protection, security tools. Letter grading.

C237A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. How different programming-language paradigms provide radically different ways of thinking about computation and offer trade-offs on many dimensions, such as modularity, extensibility, expressiveness, and safety.
244A. Distributed Database Systems. (4) Lecture, four hours; outside study, eight hours. File allocation, intelligent directory design, transaction management, deadlock, strong and weak concurrency control, commit protocols, semantic query answering, multi-database systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

245. Big Data Analytics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: course 143 or equivalent. Emphasizes data-converted 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 a flood of automatic discovery of patterns, changes, associations, and anomalies in massive databases, and is highly interdisciplinary field representing confluence of several disciplines, including database systems, data warehousing, data mining, machine learning, statistics, algorithms, data visualization, and cloud computing. Survey of main topics in big data analytics and latest advances, as well as wide spectrum of applications such as bioinformatics, E-commerce, environmental study, financial market study, multimedia data processing, network monitoring, social media analysis. Letter grading.

246. Web Information Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: courses 112, 143, 180, 181. Designed to provide skills on Web data required novel algorithms and principles for their management and retrieval. Study of Web characteristics and new management techniques needed to build commodity-scale systems in this environment. Topics include Web measuring techniques, large-scale data mining algorithms, efficient page refresh techniques, Web-search ranking algorithms, and query processing techniques on independent data sources. Letter grading.

247. Advanced Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: course 145 or M146 or equivalent. Introduction of data mining and its techniques of data mining on different types of datasets, covering basic data mining algorithms, advanced topics on text mining, recommender systems, and graph/network mining. Focus projects involving hands-on practice of mining useful knowledge from large data sets is required. Letter grading.

249. Current Topics in Computer Science: Programming Languages and Systems. (4) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science programming languages and systems in which instructor has developed special proficiency as consequence of research interests. May be repeated for credit with topic change. Letter grading.

240A. Databases and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requires: courses 143, 240A. Logical models for data and knowledge representations. Rule-based languages and nonmonotonic inference. Temporal, modal-temporal, and logic-based declarative querying/programming are salient features of this technology. Other topics include object-relational systems and data mining techniques. Letter grading.

258A. Design of VLSI Circuits and Systems. (4) (Same as Electrical and Computer Engineering M216A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requires: course M51A or Electrical and Computer Engineering M16, and Electrical and Computer Engineering 115A. Recommended: Electrical and Computer Engineering 115C. Letter grading.

258C. LSI in Computer System Design. (4) (Same as Electrical and Computer Engineering M216C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requires: course M258A. LSI/VLSI design and application in computer systems. Fundamental design techniques that can be used to implement complex microprocessors. Letter grading.

258F. Physical Design Automation of VLSI Systems. (4) Lecture, four hours; outside study, eight hours. Detailed study of various physical design automation problems of VLSI circuits, including logic partitioning, floorplanning, placement, global routing, channel and switchbox routing, planar routing and via minimization, compaction, and cell-driven layout. Discussion of applications of number of important optimization techniques, such as network flows, linear programming, annealing, and genetic algorithms. Letter grading.

258G. Logic Synthesis of Digital Systems. (4) Lecture, four hours; outside study, eight hours. Requires: courses M51A, 180. Detailed study of various problems in logic-synthesizing VLSI digital systems, including two-level Boolean network optimization; multilevel Boolean network optimization; technology mapping for standard cell designs and field-programmable gate-arrays for designing for sequential circuits; and applications of binary decision diagrams (BDDs). Letter grading.

258H. Analysis and Design of High-Speed VLSI Interconnects. (4) Lecture, four hours; outside study, eight hours. Requires: courses M258A, 258F. Detailed study of various problems in analysis and design of high-speed VLSI interconnects at both integrated circuit (IC) and packaging levels, including interconnect capacitance and resistance, lossless and lossy transmission lines, cross-talk and power distribution noise, delay models and power dissipation models, interconnect topology and geometry optimization, and optimization for high-speed system-on-chip and chiplet-driven layout.

259. 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.

266. Machine Learning Algorithms. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended prerequisite: course 180. Problems of identifying patterns in data. Machine learning allows computers to learn potential complex patterns from data and to make decisions based on these patterns. Introduction to fundamentals of this discipline to provide both conceptual grounding and practical experience with several learning algorithms. Techniques and
examples used in areas such as healthcare, financial systems, commerce, and social networking. 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 classical tools in machine learning but more emphasis on recent advances and developing efficient and provable algorithms for learning tasks. Topics include low-rank approximations, active learning, weighted sampling, and streaming algorithms. Mathematical optimization, outlier-robust algorithms, streaming algorithms. S/U or letter grading.


265A. Natural Language Processing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to natural language processing (NLP) enables computer to understand 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 propose new approaches to solve NLP problems. Letter grading.

263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requires: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presentation of foundational techniques for processing natural language data, including: question answering, paraphrasing, machine translation, word-sense disambiguation, narrative and editorial comprehension. Examination of both symbolic and statistical approaches to language processing and acquisition. Letter grading.

263C. Animals-Based Modeling. (4) Lecture, four hours; outside study, eight hours. Requires: course 130 or 131 or 161. Animals are mobile/sensing animal-like software agents embedded in simulated dynamic environments. Emphasis on modeling: goal-oriented behavior via neurocontrollers, adaptation via reinforcer learning, and language processing. Animal-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, four hours. Requires: course 161. Introduction to theory and practice of automated reasoning systems, with emphasis on 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 representation, effects on expressiveness, compactness, and computational tractability; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


266B. Statistical Computing and Inference in Vision and Cognition. (4) (Same as Statistics M232B) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), computer vision. Introduction to broad range of algorithms for statistical inference and learning that could be used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computing, sequential Monte Carlo methods, belief propagation, graph-coloring algorithms, machine learning. Letter grading.

267A. Probabilistic Programming and Relational Learning. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Introduction to computer programs as probabilistic models of relational data. Study of relational representations such as probabilistic databases, relational graphical models, and Markov logic networks, as well as various algorithms for using these models. Covers their syntax and semantics, probabilistic inference problems, parameter, and structure learning algorithms, and theoretical properties of representation and inference. Expository statistical models to formalize and reason about complex statistical assumptions and encode knowledge in machine learning models. Survey of key applications in natural language processing, graph mining, computer vision, and computational biology. Letter grading.


268S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Designed for students undertaking thesis research. Discussion of advanced topics and recent research in computational neuroscience. Neural networks and connectionist models as paradigm for parallel and concurrent computation in application to problems of perception, vision, multimodal sensory integration, and robotics. May be repeated for credit. S/U grading.

269. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current research and development in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit. Topics announced in advance by department.

274C. Animats-Based Modeling. (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 motors and motion controllers. Concurrently scheduled for courses C174B, C174C, C174D, C174E.

275. Artificial Life for Computer Graphics and Vision. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Recommended: course 265. Investigation of important role that concepts from artificial life, emerging discipline that spans computational and biological sciences, can play in construction of advanced computer graphics and vision models for virtual characters, interactive games, active vision, visual sensor networks, medical image analysis, etc. Focus on comprehensive models that can realistically emulate variety of living things: ants, birds, and other animals, as well as humans. Exposure to effective computational modeling of natural phenomena of life and their incorporation into sophisticated, self-animating graphical entities. Specific topics include mechanics of particle systems, biomechanical simulation and control, behavioral animation, reinforcement and neural-network 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 fundamental disciplines and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computer systems. Topics include decision and classification, parametric and nonparametric learning, clustering, complexity (VC-dimension, MDL, AIC), PCA/ICA/TCA, MDS, SVM, boosting. S/U or letter grading.

M280A-280CO-280D-280DA-280DP-280G-280G. Artificial Intelligence. (4) (Same as Computer Science M280A-280CO-280D-280DA-280DP-280G) Lecture, four hours; discussion, one hour; outside study, eight hours. Requires: course 180. Additional requisites for each offering announced in advance by department. Introduction to artificial intelligence and its applications, with emphasis on problem-solving and knowledge representation. Emphasis on implementation of systems that emulate or support human reasoning. Current literature and individual studies in artificial intelligence, including machine learning, planning, decision support systems, computational psychology, and heuristic programming theory. May be repeated for credit with topic change. Letter grading.

283. Natural Language Processing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Natural language processing (NLP) enables computer to understand 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 propose new approaches to solve NLP problems. Letter grading.

287A. Probabilistic Programming and Relational Learning. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Introduction to computer programs as probabilistic models of relational data. Study of relational representations such as probabilistic databases, relational graphical models, and Markov logic networks, as well as various algorithms for using these models. Covers their syntax and semantics, probabilistic inference problems, parameter, and structure learning algorithms, and theoretical properties of representation and inference. Expository statistical models to formalize and reason about complex statistical assumptions and encode knowledge in machine learning models. Survey of key applications in natural language processing, graph mining, computer vision, and computational biology. Letter grading.

288S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Designed for students undertaking thesis research. Discussion of advanced topics and recent research in computational neuroscience. Neural networks and connectionist models as paradigm for parallel and concurrent computation in application to problems of perception, vision, multimodal sensory integration, and robotics. May be repeated for credit. S/U grading.

289. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current research and development in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit. Topics announced in advance by department.

294. Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current research and development in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit. Topics announced in advance by department.

297. Artificial Life for Computer Graphics and Vision. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Recommended: course 265. Investigation of important role that concepts from artificial life, emerging discipline that spans computational and biological sciences, can play in construction of advanced computer graphics and vision models for virtual characters, interactive games, active vision, visual sensor networks, medical image analysis, etc. Focus on comprehensive models that can realistically emulate variety of living things: ants, birds, and other animals, as well as humans. Exposure to effective computational modeling of natural phenomena of life and their incorporation into sophisticated, self-animating graphical entities. Specific topics include mechanics of particle systems, biomechanical simulation and control, behavioral animation, reinforcement and neural-network 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 fundamental disciplines and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computer systems. Topics include decision and classification, parametric and nonparametric learning, clustering, complexity (VC-dimension, MDL, AIC), PCA/ICA/TCA, MDS, SVM, boosting. S/U or letter grading.

M280A-280CO-280D-280DA-280DP-280G-280G. Artificial Intelligence. (4) (Same as Computer Science M280A-280CO-280D-280DA-280DP-280G) Lecture, four hours; discussion, one hour; outside study, eight hours. Requires: course 180. Additional requisites for each offering announced in advance by department. Introduction to artificial intelligence and its applications, with emphasis on problem-solving and knowledge representation. Emphasis on implementation of systems that emulate or support human reasoning. Current literature and individual studies in artificial intelligence, including machine learning, planning, decision support systems, computational psychology, and heuristic programming theory. May be repeated for credit with topic change. Letter grading.
M282A. Cryptography. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Background in discrete mathematics helpful. Theoretically sound techniques for dealing with NP-hard problems. Inability to solve these problems efficiently motivates advances. Types include randomized algorithms, 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 designed for use when exact solutions not computationally feasible. Including individual method, linear program rounding, greedy algorithms, and local search. Letter grading.

281A. Computability and Complexity. (4) Lecture, four hours; outside study, eight hours. Introduction to the theory of computation. Stresses rigorous definitions and proofs of security. Topics include recursive, one-way functions, single-core bit pseudorandom generators, pseudorandom and pseudorandom perm. Motion, semantic security, public-key and private-key encryption, message authentication code, 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.

M282B. Cryptographic Protocols. (4) Same as Mathematics M280A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include one-way functions, one-way key functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom perm. Motions, semantic security, public-key and private-key encryption, message authentication code, 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.

M289P. 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 M270D.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Develops computational models for use in the design of systems for studying and controlling the heart and the central nervous system. Letter grading.
Conservation of Cultural Heritage / 359

The objectives of the program are to provide students with a solid educational base and practical training in the conservation of both archaeological and ethnographic materials, as well as an appreciation of the often complex issues related to significance, access, and use of these materials that can be very different from the criteria for conservation of fine art or historical materials. The special focus of the program and its interdisciplinary curriculum serves the archaeological, scientific, native, and cultural minority communities alike and offers a nexus at the boundaries of conservation, archaeology, ethnography, the natural sciences, and engineering.

The partnership between UCLA and the Getty in establishing the program ensures that both a major research university and an institution with a principal mandate for conservation of world cultural heritage are working to create rich and vibrant conservation training opportunities. The program helps students develop working relationships with a wide array of colleagues in the Getty Conservation Institute, the J. Paul Getty Museum, other local museums and cultural organizations, and different departments and programs at UCLA.

Graduate Majors

Conservation of Cultural Heritage MA

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 Material Culture MS, PhD

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 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-divi-

Faculty Committee

Kathlyn (Kara) M. Cooney, PhD (Near Eastern Languages and Cultures)
Johanna R. Drucker, PhD (Design/Media Arts, Information Studies)
Justin P. Dunnivant, PhD (Anthropology)
Mark S. Goorsky, PhD (Materials Science and Engineering)
H. Pirouz Kavehpour, PhD (Bioengineering, Mechanical and Aerospace Engineering)
Michael Osman, PhD (Architecture and Urban Design)
M. Rahim Shayegan, PhD (Near Eastern Languages and Cultures)
Lothar von Falkenhausen, PhD (Art History)
Glenn Wharton, PhD (Art History)

Overview

The UCLA/Getty Conservation interdepartmental program offers 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 Study

The program offers two degree options: a practice-focused three-year Master of Arts (MA) degree in Conservation of Cultural Heritage and a research-focused Doctor of Philosophy (PhD) degree in Conservation of Material Culture. Though the two degrees share a scholarly approach to the discipline and strong commitment to the advancement of the conservation profession, they provide distinctive competencies, preparing students for different careers in the cultural heritage section and beyond.

The aim of the program is to train the next generation of multidisciplinary researchers, heritage practitioners, and cross-cultural leaders in theoretical and experimental developments and policy of conservation and sustainable preservation of material culture. Through this training, graduates will bring innovative, cutting-edge methods and holistic approaches to the conservation profession. More specifically, these degree programs aim to provide students with integrated, comprehensive curricula to foster the next generation of conservation professionals and leaders with strong research, theoretical, and applied qualitative and quantitative skills; rigorous training in conservation theory, praxis, ethics, policy, and research; substantive research training in a specific domain of application in conservation; and experiential learning and mentoring in communication, scientific writing skills, and the ability to work in multidisciplinary teams.

Computing, Program In

See Mathematics

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
Upper-Division Courses
C120. Field Methods in Archaeological Conservation (Formerly numbered Conservation of Archaeological and Ethnographic Materials C120.) Laboratory, four hours. Overview of risks (direct and indirect) and materials vulnerable to damage in archaeological and ethnographic materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and prevention measures, including reburials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of triage methods to evaluate damage and putting triage theory into practice, salvage rescue operations, emergency temporary in situ stabilization and protection (using locally available materials). Recovery focuses 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. (Formerly numbered Conservation of Archaeological and Ethnographic Materials C142.) Lecture, two hours; activity, two hours. How conservators work together with curators, collection 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, three hours; activity, two hours. Fundamental scientific parameters in conservation of materials that are of great importance for both fundamental science and practical applications. Students gain better understanding of intrinsic properties of materials, mechanisms of deterioration, and conservation treatments. General chemistry, physics, and physical chemistry (atomic structure bonding, etc.), fluid transfer in porous materials, diffusion, interfaces, surface tension, wetting, adsorption, adhesion, dissolution and crystallization, mechanical properties (properties/characterization), phase transformations (glass, metals, polymers), letter grading.

M215. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials M215.) (Same as Materials Science M213.) Lecture, two hours; laboratory, two hours. Basic and advanced techniques on digital photography, computer-aided recording tools, and how to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge on imaging and technologies and practical skills on conservation photo-documentation, analytical (focussing) photography, and advanced new imaging technologies. Letter grading.


C220. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials C220.) Laboratory, four hours. Overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and prevention measures, including reburials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of on-site emergency risk assessments to evaluate damage and putting triage theory into practice, salvage rescue operations, emergency temporary in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis is on recognition of emergency temporary in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis is on recognition of emergency temporary in situ stabilization and protection (using locally available materials) and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis is on finding practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C120. Letter grading.

C221. Principles, Procedures, and Ethics in Conservation of Cultural Heritage. (4) (Formerly numbered C221.) (Same as Art History M272B.) Seminar, three hours. Introduction to conservation of cultural heritage materials, in relation to preservation efforts on the ground and in museums by trained professionals. Skills and value of heritage sites and role of stakeholders. Investigation of methods of evaluation of physical condition and development of appropriate treatments to address physical risks in milieu of site preservation management, including visitors’ organization, urban development, socioeconomic growth, and tourist development. Letter grading.


231. Conservation Laboratory: Organic Materials I. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials C231.) Laboratory, four hours. Enforced requisite: course 262. Designed for graduate conservation students. How to recognize characteristic deterioration problems found in organic materials from archaeological and ethnographic contexts and introduction to typical treatments used historically and currently for these materials. Materials focus on wood, bark and barkcloth, paper, and plastics and rubber. Letter grading.


238. Conservation Laboratory: Organic Materials II. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials C238.) 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 with emphasis on cleaning, consolidation, protection, and structural instability. Letter grading.

239. Conservation Laboratory: Metals II. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials C239.) Laboratory, four hours; outside study, eight hours. Enforced requisite: courses 234, 235, and 238. Recommended: courses M210, M215. Treatment of conservation problems of metallic artifacts made of iron, steel, cast iron, gold, zinc, and aluminum that have some importance in the archaeological/ethnographic context. Forest ecosystems, and value of heritage sites and role of stakeholders. Investigation of methods of evaluation of physical condition and development of appropriate treatments to address physical risks in milieu of site preservation management, including visitors’ organization, urban development, socioeconomic growth, and tourist development. Letter grading.

240. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials M240.) (Same as Information Studies M238.) Lecture, two hours; laboratory, two hours. Requisite: Information Studies 432. Required of graduate conservation students. How to recognize and address deterioration problems found in metallic materials from archaeological and ethnographic contexts with emphasis on cleaning, consolidation, protection, and structural instability. Characterization, diagnosis, and treatment of metallic materials. Letter grading.
graduate conservation students. Review of environmental and biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.


C242. Managing Collections for Museums, Libraries, and Archives. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials C242.) Lecture, two hours; activity, two hours. Designed for graduate conservation students. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Concurrently scheduled with course C142. Letter grading.

M244. Collection Management for Archives, Libraries, and Museums. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials M244.) (Same as Information Studies M244.) Lecture, two hours; laboratory, one hour. 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 M250.) Laboratory, four hours. Requisites: courses 210, 210L, 260, or permission; course 255 for search-based laboratory on conservation of rock art, wall paintings (archaeological and modern composites on cements), mosaics, and decorated architectural surfaces. Experimental techniques and analysis of materials (using materials science and reverse engineering processes) for characterization of technology, constituent materials, and alteration products; development of conservation treatment proposals, testing of conservation products and methods, and conservation treatment. Letter grading.


260. Structure, Properties, and Deterioration of Materials: Ceramics, Glass, Glazes. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 260.) Lecture, three hours. General introduction to different types of ancient ceramic and glass materials. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of materials explained using basic concepts from physics and chemistry. Structural stability and deterioration phenomena of these materials as found in cultural collections. Letter grading.

263. Structure, Properties, and Deterioration of Materials: Metals. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 263.) Lecture, three hours. General introduction to different types of ancient and ethnographic metals. Relationship 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 properties of metallic and nonmetallic alloys. Hands-on examination of variety of samples and artifacts. Letter grading.

264. Structure, Properties, and Deterioration of Materials: Rock Art, Wall Paintings, Mosaics. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 264.) Lecture, three hours. General introduction to different types of ancient and ethnographic materials 265.) Seminar, two to four hours. Discussion of conservation treatments for rock art, wall paintings (including painted surfaces on cement and composite decorative architectural surfaces), and mosaics. Archaeological and ethnographic context, techniques, and materials. Pigments, colorants, and binding media. Optical, chemical, and structural properties. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of materials explained using basic concepts from physics and chemistry. Intrinsic attributes and resistance to weathering. Deterioration mechanisms and factors (physical, chemical, and biochemical). Letter grading.

265. Structure, Properties, and Deterioration of Materials: Organic II. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 265.) Lecture, three hours. General introduction to plant-based organic materials used to produce ethnographic and archaeological cultural heritage: wood, bark, paper, bast fibers, grasses. Relationship between materials, processing, and properties of natural materials using basic concepts from biology and chemistry. Structural stability and deterioration phenomena of these materials as found in cultural collections. Letter grading.

288. Special Topics in Conservation. (2 or 4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 288.) Lecture, three to six hours; laboratory, one hour. Special topics on theoretical and practical subjects, such as focused materials studies, new conservation approaches, advanced scientific applications, or current special work by core program faculty or visiting scholars. If approved, field trips may be arranged. May be repeated for credit with topic or instructor change. Letter grading.

290. Conservation Program Internship. (6 or 12) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 290.) Seminar, 20 or 40 hours. Open only to Conservation MA program graduate students who have completed first year of conservation program coursework. Supervised conservation-related professional and research-based training in field through participation in field projects. Letter 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 definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at 310-825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members. Dentistry faculty information is available from the department.

Dentistry

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Introductory 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-divi-
sion students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required reading assignments or laboratory work leading to final oral or written examination. May be repeated for maximum of 16 units. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required paper submitted at end of course in addition to final examination (paper to be of publication quality as judged by course mentor). May be taken for maximum of 8 units. P/NP or letter grading.

Graduate Course

441G. Introduction to Healthcare. (2) Lecture, two hours. Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

Design|Media Arts

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Department e-mail
Rebeca Méndez, MFA, Chair

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Professors

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Johanna R. Drucker, PhD (Martin and Bernard Breslauer Professor of Bibliography)
Erikki I. Huhtamo, PhD
Peter B. Lunenfeld, PhD
Rebeca Méndez, MFA
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Casey E.B. Reas, MS
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Mitsuru Kataoka, MA
J. Bernard Kester, MA
Willem Henri Lucas, BA
Vasa V. Mihich

Assistant Professor

Lauren L. McCarthy, MFA

Assistant Professors

Jenna B. Caravello, MFA
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Overview

The Department of Design|Media Arts offers the Bachelor of Arts (BA) and Master of Fine Arts (MFA) degrees. The BA degree focuses on visual communication design, with emphasis on digital media. The MFA degree focuses on media arts. These uniquely challenging programs invite students to balance aesthetic sensibility with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective.

The Department of Design|Media Arts reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

Facilities

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department equipment includes computer laboratories with high-end PC and Macintosh computers and relevant software for the creation of works for print, web, video, and other media, a fabrication laboratory with equipment ranging from table saws to three-dimensional printers to a CNC machine to create physical objects combined with electronics, and a print laboratory with high-quality printers.

Undergraduate Major

Design|Media Arts BA

The undergraduate program begins with the study of basic design elements and processes: 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 concept
- Conceptualization of how an idea reaches its audience, how and when it launches, and how it stays relevant and vibrant
- Designed specifics of each element of the visual vocabulary—from graphic elements to photography, videography, and illustrations—including definition of spatial, material, and auditory elements
- Thorough research of appropriate and relevant production methods
- Analysis, review, and critique of others’ work

Requirements

Preparation for the Major

Required: Design|Media Arts 8, 10, 21, 22, 24, 25, 28.

The Major

Required: Twelve upper-division courses: Design|Media Arts 101, 104; six courses selected from 152, 153, 154, 156, 157, 161, 163; three courses selected from 160, 171, 172, 173; and one capstone course selected from 159A, 159B, or 159C.

It is recommended that students have each term’s program approved by the departmental adviser.

Consult the Schedule of Classes for courses limited to majors only.

Graduate Major

Design|Media Arts MFA

The 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.

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 Los Angeles locations. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

2. **Web Design.** (2) Studio, 30 hours. Limited to high school students. How Web design works: basic hand coding and creation of personalized homepages with Macromedia Director and Flash software. Photograph scanning and manipulation of images in Adobe Photoshop to incorporate student Web designs. Critique of various Web pages to analyze successful use of Web design and understand enormous potential of Internet. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

3. **Game Design.** (2) Studio, 30 hours. Limited to high school students. Introduction to design and creating new disciplines of virtual worlds, including virtual game characters, and making playable games for mobile platforms. Use of current software and technology, including Maya and Unity3D. Creation of prototypes that students sustain and can use for college applications. Offered only as part of UCLA Game Lab Summer Institute. P/NP grading.

4. **Audio Video Design.** (2) Studio, 30 hours. Limited to high school students. Creation of storyboard for short documentary, commercial, or music video. Students shoot and edit their own work by learning fundamentals of preproduction and postproduction using latest digital software, Adobe Premiere and After Effects, to create their work. Burning of DVD of finished production. Visits from professional video producer to help guide students in creating their own videos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

5. **Introduction to Design | Media Arts.** (5) Studio, 40 hours. Limited to high school students. Two-week summer course 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 and interactive project. Creation of games projects that students sustain and can use for college applications. 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 lecture, studio, and laboratory visits with 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. Focus on new science and biotechnology research and human impact. Development of proposals and ideas that could serve as prototypes for either art projects or scientific research study. P/NP grading.

7. **Media Histories.** (5) Lecture, three hours; outside study, 12 hours. Synthesis of video art, and aesthetic movements covering past two centuries: photography and industrialization/Romanticism (1850 to 1900), cinema and modernism (1900 to 1950), television and pop art (1950 to 1970), and digital media and unimodernism (2000 to 2050). How such movements can inform generative work and how understanding these media 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. Introduction to and exploration 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 lectures. Emphasis on art on 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 environments. P/NP or letter grading.

10. **Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of P/NP grading.

11. **21. Drawing and Color.** (4) Studio, six hours; outside study, six hours. For drawing, exploration of relationship between concept and image creation while fostering development of sound drawing and observation skills. For color, exploration of development of fundamental skills in mixing and applying pigments with brush on watercolor paper, as well as use of computer as tool for working with colors. Combination of project and seminar in developing skills of fundamental skills related to each other across cultures and media, with strong emphasis on communication design. P/NP or letter grading.

12. **152. Tangible Media.** (5) Studio, six hours; outside study, nine hours. Exploration of technologies: courses 22, 28, and 101 or 104. Through workshops, readings, lectures, critiques, and discussions, reevaluation of role of desktop computers (and their mice, trackpads, keyboards, screens, and gamepads) plays in forming our understanding of what is technically possible, sensible, logical, foolish, magical, and intuitive. P/NP or letter grading.

13. **153. Video.** (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: 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.


15. **156. Three-Dimensional Modeling and Motion.** (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 and ability to type/interactive software, and complex communication problems in print and digital media. Research, concept, and content development, and articulation of methodology for visualization. P/NP or letter grading.

16. **Interactive Animation.** (5) Studio, six hours; outside study, nine hours. Requisites: courses 101 or 104. Exploration of potential and ideas related to interactivity, with focus on required skills for creating interactive work. Development of programming skills in service of creating examples of media art. Concepts and skills taught enhance student ability to excel in future courses about Internet, animation, interactive media, and game design. Discussion and readings on four themes: real-time graphics, interaction/programming, and interface. P/NP or letter grading.

17. **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 enrollment in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

### Upper-Division Courses

101. **Media Arts: Introduction.** (5) Lecture, three hours; outside study, 12 hours. Limited to and required of Design|Media Arts majors. Survey of media arts, their history, aesthetics, and cultural roles from late-19th century to present. Investigation of media arts within broad historical and cultural framework. Discussion of paradigms and links with art and science, including history of technology and various art and design practices. P/NP or letter grading.

104. **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 practice and theory of 20th and 21st centuries, incorporating historical as well as speculative methodologies. Consideration of how emerging tools and techniques related to each other across cultures and media, with strong emphasis on communication design. P/NP or letter grading.

152. **Tangible Media.** (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 22, 28, and 101 or 104. Through workshops, readings, lectures, critiques, and discussions, reevaluation of role of desktop computers (and their mice, trackpads, keyboards, screens, and gamepads) plays in forming our understanding of what is technically possible, sensible, logical, foolish, magical, and intuitive. P/NP or letter grading.

153. **Video.** (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 and ability to type/interactive software, and complex communication problems in print and digital media. Research, concept, and content development, and articulation of methodology for visualization. P/NP or letter grading.

155. **Interactive Animation.** (5) Studio, six hours; outside study, nine hours. Requisites: courses 101 or 104. Exploration of potential and ideas related to interactivity, with focus on required skills for creating interactive work. Development of programming skills in service of creating examples of media art. Concepts and skills taught enhance student ability to excel in future courses about Internet, animation, interactive media, and game design. Discussion and readings on four themes: real-time graphics, interaction/programming, and interface. P/NP or letter grading.

156. **Three-Dimensional Modeling and Motion.** (5) Studio, six hours; outside study, nine hours. Requisites: courses 21, 22, 25, and 101 or 104. Focus on relationship of type to content, image, and materials. Acquisition of knowledge and ability to type/interactive software, and complex communication problems in print and digital media. Research, concept, and content development, and articulation of methodology for visualization. P/NP or letter grading.

157. **Game Design.** (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 22, 28, and 101 or 104. Introduction to game design, with focus
on developing conceptual and practical skills that form the 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, physical interaction, and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

158. Game Engine. (5) Studio, six hours; outside study, nine hours. Requisites: courses 24, and 101 or 104. Introduction to the design of essential components of interactive and educational game projects in game development software. Focus on familiarizing students with game engines, computer programming, and game engine expense, and other tools that are foundational to making digital games. Lectures, exercises, and class projects teach skills needed to create digital games including custom rules, interactive physics systems, real-time and/or randomized levels, save data, custom input systems, score-keeping, and sound. P/NP or letter grading.

159. Capstone Senior Project in Design Media Arts. (Formerly numbered 159A.) 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. Letter grading. 159B-159C. Capstone Senior Project. (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. P/NP or letter grading. Requisites: courses 24, 28, 101, 104, 153, 156, and 160, 171, 172, or 173. Linear media, including storytelling, video, animation, modeling, editing, postproduction, and lighting. 159C. Visual Communication and Image. Requisites: courses 24, 28, 101, 104, 154, and 160, 171, 172, or 173. Visual communication, editorial design, photography, typograph- ry, branding, and strategies. P/NP or letter grading.

160. Special Topics in Design|Media Arts. (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. P/NP or letter grading. Requisites: courses 24, 28, 101, 104, 153, 156, and 160, 171, 172, or 173. Linear media, including storytelling, video, animation, modeling, editing, postproduction, and lighting. 159C. Virtuality. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper-division core courses required. Requisites: courses 24, 28, 101 or 104, 154, 156. Selected topics in visual communication and image explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

170. Topics in Visual Communication and Image. (5) Studio, six hours; outside study, nine hours. Completion of preparation for major and upper-division core courses required. Requisites: courses 101 or 104, 152. Selected topics in visual communication and image explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

173. Topics in Interactivity and Games. (5) Studio, six hours; outside study, nine hours. Completion of preparation for major and upper-division core courses required. Requisites: courses 101 or 104, 153 or 156. Selected topics in video and animation explored through variety of approaches that may include projects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

178. Game Design. P/NP or letter grading. Randomness, polemics, narrative, physical interaction, sign, game balance, multiplayer strategy, complexity, that explore various aspects of game design: rule de-
Overview

The Digital Humanities minor is an interdisciplinary minor that studies the foundations and futures of the digital world. Digital humanities interprets the cultural and social impact of the new information age as well as creates and applies new technologies to answer cultural, social, and historical questions, both those traditionally conceived and those enabled by new technologies. The interdisciplinary curriculum draws on faculty members from more than 15 departments, five schools, and three research centers at UCLA. It places project-based learning at the heart of the curriculum, with students working in collaborative teams to realize digital research projects with real-world applications. Students use tools and methodologies such as three-dimensional visualization, data mining, network analysis, and digital mapping to conceptualize and advance research projects. Students have the opportunity to make significant contributions to scholarship in fields ranging from archaeology and architecture to history and literature. By preparing students to be active participants in the design and production of new knowledge, the minor emphasizes the critical thinking skills, creativity, and collaborative methodologies necessary for success in the digital information age.

Undergraduate Minor

Digital Humanities Minor

The Digital Humanities minor is intended to provide students with literacy in creating, interpreting, and applying the technologies of the digital world. It examines the cultural and social impact of new technologies and enables students to harness these technologies to develop their own research projects in a wide range of fields.

Admission

To apply for the minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor and enumerating any digital projects that they have already undertaken. On acceptance to the minor, students are expected to identify an academic area of digital humanities in which they intend to concentrate. Information about the minor is available on the minor website. To submit an application for the minor, see the website.

The Minor

Required 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 137, 198, or 199; and three elective courses selected from Ancient Near East M101C (or Art History M110C), 125A, M125B (or Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), 162, C165, CM169 (or Anthropology CM110Q), Anthropology M116R (or Chinese M183), Architecture and Urban Design 132, Armenian C153, Art History C145A, C145B, Classics 164, 166B, Design/Media Arts 104, Digital Humanities 151, 195 or 196, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavian C133A, C171, Society and Genetics 131, 175, Spanish 130, 150, 170, Urban Planning 129, 141.

Policies

Variable topics courses may be taken as topics apply.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Digital Humanities

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
30. Los Angeles Tech City: Digital Technologies and Spatial Justice. (5) Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic 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, social science, and information 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. (4) Lecture, 75 minutes; discussion, 75 minutes. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-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. Required: 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 practicing 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. Required: 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 may be used to challenge power structures. 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 being used by corporate entities, and ethical data usage. Students learn digital research methods including quantitative and qualitative data analysis, 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 with particular focus in humanities and social sciences, with focus on topics and issues related to social justice. Study of descriptive and inferential statistics as applied in humanistic research. Consideration of how to generate evidence-based, statistically sound arguments, applying methods learned throughout the course to a collaborative project. Students learn statistical methods, R Studio environment and language, and how to communicate their arguments in cogent narratives supported by evidence. Letter grading.

131. Digital Mapping and Critical Geographic Information Systems. (4) Seminar, three hours. Requisite: course 101 or instructor. Introduction to digital mapping and critical geographic information systems. Study of basic data types including geographic, structured, and unstructured. Students engage with existing mapping practices such as geocoding 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 discover how to manage and apply data to wide range of digital mapping technologies. Consideration of how to incorporate these concepts into humanities and social sciences research. Letter grading.


140. Coding for Humanities. (4) Seminar, three hours. Requisite: course 101. Introduction to coding, with focus on Python. Study of basic structural elements such as lists, if statements, dictionaries, loops, functions, and classes. Consideration of how to apply these concepts to research in humanities and social sciences, and project-based learning. Students discover how to manage and display data with added impact. Content and goals are guided by freedom to search more effectively and freedom of speech. Letter grading.

150. Advanced Topics in Digital Humanities. (4) Seminar, three hours. Requisite: course 101. Introduction to advanced research methods or thematic issues in digital humanities such as database and visualization technologies, social media technologies, application programming interfaces, and digital mapping to acquire familiarity with particular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

151. Advanced Topics in Urban Humanities. (4) Seminar, three hours. Introduction to advanced research topics in urban humanities. Looking at specific subject matter, the production of spatial equity in context of Los Angeles, exploration of how certain spatial technologies such as geographic information systems (GIS) cartography, mobile telephony, real-time data collection, social media, digital databases, and interactive web platforms can be deployed to research and document urban experience. Familiarization with digital tools used to study urban issues, from affordable housing to access to public space, to civic participation. Letter grading.

187. Capstone Seminar in Digital Humanities. (4) Seminar, three hours. Requisite: course 101. Students are guided in development and realization of collaborative digital humanities research project. Students learn to develop and refine research question, carry out advanced research using digital tools, and present results of their research to their peers. Students participate in structured trainings, work with classmates to select suitable research topics, give weekly updates on progress, and develop presentation of project. Librarians and members of Digital Research Consortium introduce students to available digital archives, collections, and other resources. 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.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topic 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.

198SD. Directed Reading in Digital Humanities. (4) Tutorial, two hours; fieldwork, eight hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

199. Research Apprenticeship in Digital Humanities. (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 grading.

199HC. Honors Research in Digital Humanities. (4) Tu- torial, one hour. Requisite: course 101. Limited to juniors/seniors. Research apprenticeship focused on significant research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199SD. Directed Research in Digital Humanities. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating project or paper may be required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Digital Humanities. (3) Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its beginning in post-World War II era to present, highlighting major theoretical problems, disciplinary paradigms, and institutional challenges that are posed by digital humanities. Examination of major epistemological, methodological, technological, and institutional challenges posed by digital humanities through number of specific projects that address fundamental problems in creating, interpreting, preserving, and transmitting human cultural record. How digital technologies, such as map visualization and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

250. Special Topics in Digital Humanities. (4) Seminar, three hours. Enforced requisite: course 201. Introduction to advanced research method or thematic issues in digital humanities, such as digital textual analysis, digital mapping database and visualization technologies, or social media technologies. Acquisition of familiarity with particular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area. Examination of critiques of theoretical underpinnings of 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. Enforced 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. (2 to 12) Tutorial, three hours. To be arranged with faculty member who directs study or research. S/U or letter grading.
Undergraduate Minor
Disability Studies Minor
Through a core course, carefully selected electives, a required two-semester 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 an institution or agency at the local, state, or federal level responsible for policy on disability issues or collaborating on a research project, or working 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 198A and 198B 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.

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.

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-semester 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.

Disability Studies
Lower-Division Courses
1. Construction of (Dis)ability and Ableism in U.S. (5) Lecture, two hours; discussion, two hours. Examination of ways in which certain bodies and minds have been categorized, disabled, conceivably, oppressed, and liberate in U.S. over time. Using intersectional lenses, exploration of origins of American eugenics movement, social construction of normality and (dis)ability, and ability in many forms (e.g., individual, legal, medical, cultural, financial). Students learn how to apply critical disability studies framework to evaluate relationships between race, ethnicity, language, gender, sexual orientation, income, and disability in relation to disablement and ableism. Covers key topics and theoretical frameworks in disability studies to give students foundational and conceptual knowledge needed to analyze social, political, and cultural issues from critical disability studies perspectives.

P/NP or letter grading.

10. Intersections of Art History and Disability Studies: Disability in Modern Art. (5) Lecture, four hours. 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 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. Introduces 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 radiocarbon that challenges sociocultural norms. Consideration of how disability aesthetics informs photography, performance art, outsider art, and curatorial practices.

P/NP or letter grading.

P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical and 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
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 creative strategies for improving disability-consciousness among social movement efforts and campaigns. P/NP or letter grading.

101W. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 101. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around productive and creative strategies for improving disability-consciousness among social movement efforts and campaigns. P/NP or letter grading.

102. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate incidence of violence committed against people with disabilities, whether specifically as form of hate crime or based on dependency and/or vulnerability that accompany some types of disability; (2) study of role of disability and particularly mental illness in representations of criminality and violence; and (3) disability or emergent disability (injuries, illnesses, and impairments created by social inequality) as consequence of intersectional identities of racial, gender, and disability categories. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. P/NP or letter grading.

111. Disability as Spectacle: Performing Nonnormative Bodies. (4) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H. Survey of modes of disability in literature, with specific emphasis on thematic concerns. Topics may include introduction to disability studies; race, gender, and disability; disability narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) Same as English M103D. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of modes of disability in literature, with specific emphasis on thematic concerns. Topics may include introduction to disability studies; race, gender, and disability; disability narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110. Disability and Popular Culture. (4) Lecture, four hours. Drawing from disability studies, media studies, and theories of representation, examination of increasing visibility of people with disabilities in popular culture. How disability is represented and who gets to represent it. Analysis and critique of representations of people with disabilities in late 20th and early 21st century cinema and television to understand functioning of representation in popular culture. Development of critical media literacy skills. P/NP or letter grading.

111. Disability as Spectacle: Performing Nonnormative Bodies. (4) Lecture, two hours; studio, two hours. Examination through eyes of disability activists and artists interrogating how aspects of body get deemed nonnormative. Drawing from popular film and TV, it means to push against pressure to fit in, as well as how to contest invisibility of some disabilities that happen when normal bodies get defined visually. Use of this
M113. Variable Topics on Music and Disability. (4) (Same as Musicology M113.) Seminar, four hours. Analysis and critique of depictions of disability in music. Topics may 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.

M114. Variable Topics in Performance and Disability Studies. (4) (Same as Theater M114.) Seminar, four hours. Analysis and critique of depictions of disability in theater. Topics may include introduction to disability studies; race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M115. Enforcing Normalcy: Deaf and Disability Studies. (4) (Same as American Sign Language M115.) Lecture, three hours. Exploration of historical, medical, social, political, and cultural in- fluences that have constructed categories of normalcy, disability, and deafness. Reading of Michel Foucault and critical work in field of disability studies of works that have challenged standards of normalcy throughout 19th and 20th centuries to present. Primary attention to role of medical authority in West, history of eugenics, and contemporary bioethics issues confronting disability and deaf communities. P/NP or letter grading.

120. Special Topics on Race and Disability. (4) Lecture, four hours. Exploration of race and disability, with emphasis on lived realities of people of color with dis- abilities. Use of scholarly texts from disability studies, sociology, gender studies, or critical race studies to in- vestigate and critique mechanisms and systems that shape race, ability, and gender. P/NP or letter grading.

M121. Topics in Gender and Disabilities. (4) (Same as Gender Studies M121.) Lecture, three and one half hours. Limited to juniors/seniors. Ways in which issues of disability are affected by gender, with particular atten- tion to various roles, positions, and concerns of women with disabilities. Approach is intersectional, exploring how social categories of class, race, eth- nicity, religion, and ability intersect with disability and gender. Topics include law (civil rights, nondiscrimina- tion), representation (arts, literature), education, public policy, health care, and in-depth critique of work with topic and instructor change. P/NP or letter grading.

M122. Bodies in Antiquity. (4) (Same as Classics M149.) Lecture, three hours. Investigation of individ- uals and groups that compose ancient Greek and Roman society and represent themselves as having a disability in the ancient world, social body, with particular focus on marginalized or minority groups such as women, noncitizens (resident aliens and provincials), slaves, children, elderly, and disabled. Examination of ways these groups con- tribute to or detract from our understanding of ancient society as whole. May be repeated for credit with topic change. P/NP or letter grading.

M125. Exploring Intimacy, Disability and Sexuality. (4) (Same as Lesbian, Gay, Bisexual, Trans- gender, and Queer Studies M125.) Lecture, three hours. Exploration of identity as means of understanding cultural information and nondominant power dynamics, and systems of visual representa- tion. Intersectional approach to explore how ability and sexuality intersect, overlap, and change notions of identity. Limit to juniors/seniors. Limited to four credit hours with topic or instructor change. P/NP or letter grading.

129. Theory, Policy, and Practice of Special Educa- tion: Implications for Educators and Advocates. (4) Lecture, three hours. Examination of issues of dis- ability in K-12 schooling and social and historical con- texts of special education policy, as well as its imple- mentation. Focus on equity-related legal and policy is- sues in education, specifically those associated with disability, race, language, and gender and how these intersect. Consideration of landmark court decisions such as Brown versus Board of Education (1954) and Board of Education versus Allen (1983), as well as key legislation such as Americans with Disabilities Act (ADA) and Individuals with Disabilities Education Act (IDEA). P/NP or letter grading.

M130. Disability Policy and Services in Contempo- rary America. (4) (Same as Gerontology M115 and Social Welfare M115.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in America today, and a growing disability population struggle to lead 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? How have research and advocacy efforts been made over time by disability advocates? How has government addressed demands of advocates for various disabilities? What do we know about extent to which public policies and programs are responsive to people in need? How do demon- graphics, economics, and politics continue to influ- ence evolving public policy responses? P/NP or letter grading.

131. Alternative Approaches to Language Acquisi- tion. (4) Seminar, four hours. Examination of everyday experience of language delay, disorder, difference, and difficulties from disability perspective. Presenta- tion of key concepts and terminology of culture, dis- ability, and language use. Discussions and assign- ments critically evaluate findings on language acquisi- tion by asking questions about language inclusion, individual- and socially constructed experi- ence, and power. P/NP or letter grading.

138XP. Applied Autism Intervention: Multidisci- plinary Perspective. (4) (Formerly numbered 138BL.) Lecture, 90 minutes; service-learning course for undergraduate students in Early Childhood Partial Hospitalization Program (ECHPP). Introduction to history, theory, and practice of autism interven- tions and societal and cultural factors that de- termine how society and medical profession under- stand autism as diagnostic category. Study of pro- cesses involved in identifying autism as represented in fields of psychology, neuroscience, and disability studies. Review of social versus medical model of dis- ability and analysis of dominant as well as counter dis- course on autism. Overview of broader educational is- sues for children with disabilities as well as parent perceptions. P/NP or letter grading.

M139. Perspectives on Autism and Neurodiversity. (4) (Same as Psychology M139.) Seminar, three and one half hours. Gender, demographic cat- egor and cultural phenomenon from its historical roots as new, rare, and obscure condition in early 1940s to its current contested status as minority iden- tity 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 way people on spectrum define, explain, and repre- sent their own experiences and discus- tion of what ramifications of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

145. Mental Disability Law. (4) Lecture, three hours. Examination of historical and legal characteristics of those conditions that legal systems recognize as mental disabilities. Review of evolution of these defini- tions through U.S. and Western histories, with focus on role conception of mental illness has played in various racial, gendered, and economic regimes. Ex- ploration of primary approaches U.S. legal system takes to address needs, vulnerabilities, and rights of people with mental disabilities with mental dis- abilities. Discussion of some key challenges and con- troversies affecting policy and practice in this area and varying strategies for engaging these challenges. P/NP or letter grading.

M146. Sociology of Mental Illness. (4) (Same as So- ciology M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psy- chological models of madness. Study of social pro- cesses involved in production, recognition, labeling, and treatment of mental illness. P/NP or letter grading.

M149. Disability Rights Law. (4) (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 settings, from preschool to high school, from military to workplace, and from intensely urban envi- ronments to online and virtual worlds. Topics range from persistent and recurring disputes to novel contro- versies fueled by new technologies and changing times. P/NP or letter grading.

150. Human Rights, International Development, and Disability. (4) Lecture, three hours. Basic intro- duction to theories of human rights, sociology of de- velopment, and contemporary rights-based develop- ment theory and practice. International disability rights movement to serve as case study, following passage of U.N. Convention on Rights of Persons with Disabil- ities in 2006 to changes on ground in developing coun- tries that are occurring today. Offered in summer only. P/NP or letter grading.

M157. Rechoreographing Disability. (4) (Same as Dance M157.) Lecture, four hours. Examination 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 performance making work about disability. P/NP or letter grading.

M161. Sports, Nonviolence, and Body. (4) (Same as Gender Studies M161.) Seminar, four hours. Exploration of identity as means of under- standing the physical, social, and cultural aspects of sport. 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.

163A-163B. Autism Media Laboratory. (5-5) (For- merly numbered 163B.) Lecture, two hours; discussion, one hour. Course 163A is requisite to course 163B. People with autism who are non-speaking face chal- lenges fully participating in their communities. Explo- ration of documentary filmmaking as catalyst to edu- cate greater community on importance of inclusion of people with disabilities. Students work together with community teachers, autistic self-advocates who are non-speaking or minimally speaking, to create docu- mentary short films. Students explore issues related to autism, disability while gaining exposure to observation, interview-based, and participatory documen- tary shooting and editing techniques. Letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (5) (Same as Urban Planning M164A.) Seminar, three hours; fieldwork, two hours. Examination of documentary filmmaking as cat- alyst for social change, using daily commute in Los Angeles as case study. Introduction to issues of race, class, and gender, as well as experiences of commuting, access to public transportation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to observational, inter- view-based, and participatory shooting and editing techniques, as well as social marketing strategies that are vital to documentary production and distribution. Letter grade.

M169. Documenting Disability on Film. (4) Lecture, four hours. Nonfiction digital media is used as con- temporary form of investigation or research or is at- tached to research projects, built into websites, used
in campaigns for social and political activism, and exhibited at film festivals. Social-issue documentaries 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.

M166. Health-Care Ethics. (4) (Same as Society and Genetics M166.) Lecture; three hours; discussion, one hour. Consideration of critical ethical concepts as they apply to health-care practice, medical decision-making, and medical technology development and use. Consideration of concepts drawn from philosophy, literature and culture, and political history including freedom, equality, justice, vitality, knowledge, kinship, and the concept of disability. Examination of how concept of human dignity should shape healthcare decisions such as physician-aided dying or selective abortion; proper relationship between history and concept of human rights and distribution of medical resources; how political and ethical category equality should structure development and use of genetic editing; how health-care concepts patient autonomy relates to political concept of liberty or freedom; how to evaluate good life, or what philosophers call flourishing, in medical treatment decisions for individuals or development of therapies. P/NP or letter grading.

M171. Philanthropy: Challenging Frontiers of Serving Disabled. (5) (Same as Honors Collegium M170.) Lecture; three hours. Enforced requisite: course 101 or 101W. Designated as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M189HC. Honors Contracts. (1) Tutorial, one hour. Enforced requisite: course 101 or 101W. Designed for advanced junior/senior Disability Studies minors. In-depth study of major themes in disability studies research. Topics vary by instructor and term. Students pursing independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

M191F. Topics in Gender and Disability. (5) (Same as Gender Studies M191F.) Seminar, three hours. In-depth study of major themes in disability studies and gender studies. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

M172. Care Work: Disability Justice and Health Care. (2) (Same as Nursing M172.) Lecture; one hour; discussion, one hour. Exploration of nature, history, models, and propositions of care, care work, disability, disability justice, and health care. Consideration of intersections, interdependence, and complexities of formal and informal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Letter grading.

M172XP. Care Work: Disability Justice and Health Care. (4) (Same as Nursing M172XP.) Seminar, two hours. Corequisite: course M172. Exploration of nature, history, models, and propositions of care, care work, disability, disability justice movement, and health care. Consideration of intersections, interdependence, and complexities of formal and informal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Letter grading.

M183. Being Human: Identity and Mental Illness. (5) (Same as Honors Collegium M183 and Society and Genetics M183.) Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diversity. Enduring philosophical questions regarding personal identity, consciousness, selfhood and mind-body relationship are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

187. Special Topics in Disability Studies. (4) Lecture, one hour; discussion, two hours (when scheduled). Variable topics in one area within disability studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

189C. 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. In Progress (198A) and letter (198B) grading.

198C. Honors Research in Disability Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A-199B. Directed Research in Disability Studies. (2-4) Tutorial, one hour. Enforced requisite: course 101 or 101W. Course 199A is enforced requisite to 199B. Limited to juniors/seniors. Required capstone course to Disability Studies minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. In Progress (199A) and letter (199B) grading.

199C. Senior Project in Disability Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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Edwin A. Schaubel, PhD
Hilke E. Schlichting, PhD
J. William Schopf, PhD
Lars P. Stixrude, PhD
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 skills and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes

The Earth and Environmental Science major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major

Transfer Students

Transfer applicants to the Earth and Environmental Science major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one calculus course. One introductory biology course with laboratory and one calculus-based physics course with laboratory are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 1, 5 or 8 or 13 or 15 or 16 or 17 or 20, 51, 61; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 7B or another introductory organismic biology course; Mathematics 3A and 3B, or 31A and 31B; Physics 1A or 5A.

The Major

Required: Three courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, 116, 119; one capstone 199 research course in the senior year; three additional upper-division courses from Earth, Planetary, and Space Sciences other than 100; two courses from Geophysics 101, M102, M103, 116, 120, M126, M131, 136.

Policies

Preparation for the Major

Each course must be passed with a minimum grade of C-.

Engineering Geology BS

Capstone Major

The Engineering Geology major is a designated capstone major. Students are required to use skills and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes

The Engineering Geology major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major

Transfer Students

Transfer applicants to the Engineering Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, 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.

Requirements

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.
The Major

Required: 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).

Policies

Preparation for the Major

Each course must be passed with a minimum grade of C-.

Geology BS

Capstone Major

The Geology major is a designated capstone major. Students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes

The Geology major has the following learning outcomes:
- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major

Transfer Students

Transfer applicants to the Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, 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.

Requirements

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 1, 51, 61, M71; 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, 1C, 4AL, and 4BL.

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.

Students must complete a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis.

Policies

Preparation for the Major

Each course must be passed with a minimum grade of C-.

Geophysics BS

Capstone Major

The Geophysics major is a designated capstone major. Students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes

The Geophysics major has the following learning outcomes:
- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major

Transfer Students

Transfer applicants to the Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, one general physics course with laboratory for majors, and one year of calculus. A second year of calculus and a second semester of calculus-based physics with laboratory are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 51, 61, M71, and one course from 1 (preferred) through 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required Core: Earth, Planetary, and Space Sciences 136A, 171, one capstone field research course (136C), one course from 153, 155, 154, 155; Physics 105A, 105B, 110A, 110B, 131.

At least three courses from one of the following areas are also required: (1) applied geophysics—Earth, Planetary, and Space Sciences 111, 112, 122, 136B, M140, 150, 152, (2) marine geophysics—courses 119, 122, 136B, M140, 150, 153, (3) planetary geophysics—courses M140, 150, 153, 154, 155, (4) solid earth geophysics—courses 119, 122, 136B, M140, 150, 152, or (5) space physics—Atmospheric and Oceanic Sciences C170, Earth, Planetary, and Space Sciences 136B, M140, 154, 155, Physics M122. Any course used to satisfy an area requirement cannot also be applied toward the core requirements listed above.

Honors Program

The honors program in geophysics is intended to provide exceptional students an opportunity for advanced research and study under the tutorial guidance of a faculty member.

Students must complete a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis.

Policies

Preparation for the Major

Each course must be passed with a minimum grade of C-.

The Major

Substitutions of equivalent courses from engineering or other physical sciences departments must be approved by the undergraduate adviser.

Honors Program

Requirements for admission to candidacy are the same as those required for admission to the Honors Programs of the College of Letters and Science. Qualified students wishing to enter the program must submit a completed application form to the departmental honors committee near the end of their junior year. Honors in geophysics are awarded at graduation to those students who have a cumulative grade-point average of 3.5, have completed at least 90 graded units at the University of California, and have completed a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis.

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.

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.

Earth, Planetary, and Space Sciences / 371
honors thesis. Students demonstrating exceptional ability are awarded highest honors.

Undergraduate Minors

Earth and Environmental Science Minor

In the Earth and Environmental Science minor students study the interaction of the solid Earth, oceans, and atmosphere with human activities. The minor provides background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (9 units): Earth, Planetary, and Space Sciences 1, 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.

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 (9 units): Earth, Planetary, and Space Sciences 1, 8, 9.


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

Geochemistry 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 (9 units): Earth, Planetary, and Space Sciences 1, 61.

Required Upper-Division Courses (22 units): Earth, Planetary, and Space Sciences 112, 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.

Geophysics and Planetary Physics Minor

Classical physics, supported by field data, mathematics, and computing, is used to understand diverse processes from ocean circulation and earthquakes to the formation of planets and the flow of particles and electromagnetic fields in space. These skills are valuable in environmental, engineering, and resource studies and more broadly in any kind of career that requires quantitative analysis.

Admission

To enter the Geophysics and Planetary Physics minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (14 units): Earth, Planetary, and Space Sciences 1, 8, 9.
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 geologic problems in field. P/NP or letter grading.


3. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geology and mineral resources of the Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California geology; gold mining in mining region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mining regions.


5. Earthquakes. (5) Lecture, three hours; laboratory, one hour; 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.


10A. Igneous Petrology. (5) Lecture, two to three hours; laboratory, six hours; field trips. Enforced requisite: course 103A. Study of igneous rocks based on characteristics of sedimentary particles and dynamics of depositional processes. Lectures focus on development of depositional facies models, and laboratories emphasize recognition of sedimentary deposits from each major depositional facies. P/NP or letter grading.

10B. Metamorphic Petrology. (5) Lecture, two to three hours; laboratory, six hours; field trips. Enforced requisite: course 103A. Interpretation of metamorphic rocks based on field occurrence, mineralogical composition, texture, and application of physical and chemical principles. P/NP or letter grading.

10C. Physical Geochemistry. (4) Lecture, three hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, gases; magma; crystallization of phases; cases studies of important geochemical and environmental issues. Concurrently scheduled with course C206. P/NP or letter grading.

10D. 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 and their isotopes; and environmental and biogeochemical systems. P/NP or letter grading.


11. Stratigraphic and Field Geology. (6) Lecture, two hours; laboratory, three hours; fieldwork, eight hours per week. Enforced requisite: courses 61, 112. Principles of stratigraphy; geologic mapping of selected area; preparation of geologic report. Letter grading.

11G. 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.


12. Structural and Environmental Geochronology. (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
photoheterotrophic (organic matter degradation with phic (fermentation and respiration of organic matter), biogeochemical reactions occurring in aquatic sys

Atmospheric and Oceanic Sciences M105. Study of CM114A. Aquatic Geomicrobiology: Metabolisms. At

drosphere. Examination of how these reservoirs are environment and interplay between biology, human

timate evolution and diversity. Local and global-scale

doped by biological cycles and feedbacks to biolog

equilibrium and diversity. Local and global-scale

biodegradation affecting 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 C212. P/NP or letter grading.

CM114A. Aquatic Geomicrobiology: Metabolisms. (4) (Formerly numbered CM114.) (Same as Atmosphe

CM114B. Aquatic Geomicrobiology: Environm

116. Paleontology. (4) Lecture, three hours; laborato

119. Continental Drift and Plate Tectonics. (4) Lec

120. Rubey Colloquium: Major Advances in Earth, Planetary, and Space Sciences. (4) Lecture, three hours. Des


120. Rubey Colloquium: Major Advances in Earth, Planetary, and Space Sciences. (4) Lecture, three hours. Des


121F. Advanced Field Geology: Fieldwork. (4) Field

121F. Advanced Field Geology: Fieldwork. (4) Field

139. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite course 1 or 100. Recommended: course 111. Princi

ciples and practice of soil mechanics and foundation engineering in light of geologic conditions, recogni

tion, evaluation, and control of landslides, earthflows, and other geologic phenomena affecting urbanization and their effects on buildings and other structures. P/NP or letter grading.

M140. Introduction to Fluid Dynamics. (4) (Same as Atmosph

126. Advanced Petrology. (4) Lecture, three hours; laborato

126. Advanced Petrology. (4) Lecture, three hours; laborato

126. Advanced Petrology. (4) Lecture, three hours; laborato

130. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite course 1 or 100. Recommended: course 111. Princi

ciples and practice of soil mechanics and foundation engineering in light of geologic conditions, recogni

tion, evaluation, and control of landslides, earthflows, and other geologic phenomena affecting urbanization and their effects on buildings and other structures. P/NP or letter grading.

M140. Introduction to Fluid Dynamics. (4) (Same as Atmosph

123. Historical and Regional Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requisi


133. Historical and Regional Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requi

130. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite course 1 or 100. Recommended: course 111. Princi

ciples and practice of soil mechanics and foundation engineering in light of geologic conditions, recogni

tion, evaluation, and control of landslides, earthflows, and other geologic phenomena affecting urbanization and their effects on buildings and other structures. P/NP or letter grading.

M140. Introduction to Fluid Dynamics. (4) (Same as Atmosph

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126. Advanced Petrology. (4) Lecture, three hours; laborato

137. Petroleum Geology. (4) Lecture, three hours; discussion, one hour. Enrolled requisite classes are: course 103A, Physics 1A 1B, 1A 1B, 1A 1B, 1B

137. Petroleum Geology. (4) Lecture, three hours; discussion, one hour. Enrolled requisite classes are: course 103A, Physics 1A 1B, 1A 1B, 1A 1B, 1B

137. Petroleum Geology. (4) Lecture, three hours; discussion, one hour. Enrolled requisite classes are: course 103A, Physics 1A 1B, 1A 1B, 1A 1B, 1B

138. Geosciences Outreach. (4) Lecture, three hours; labo

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applications include materials processing, generation of coherent radiation, particle beams, and fusion energy production. Letter grading.

C160. 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 for rapid assimilation of knowledge from experience. Use of computer and digital photomicrography to enhance learning. Introduction to concepts in mineralogy, crystallography, materials science, and their applications. Letter grading.


165. Tectonic Geomorphology. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: course 1 or 8. Recommended: courses 61, 119, Mathematics 31A. Interactions between tectonics, climate, and surface processes shape landscapes over days to millions of years. Quantifying how tectonic and surface processes interact to govern landscape evolution. How landscapes can provide insights into physical and chemical surface processes, including bedrock erosion, mass wasting, hillslope processes, and river and glacial erosion. How tectonics, climate, and underlying lithology may influence those processes in landscapes. P/NP or letter grading.

CM171. Introduction to Geosciences. (4) (Formerly numbered 171.) (Same as Atmospheric and Oceanic Sciences M171.) Lecture, four hours. Enforced requisites: course M71, Mathematics 3A, 3B, and 3C (or 31A and 31B). Use of high level computing languages to create interactive laboratory-style experimental data. Misfit modeling and quantitative comparisons of acquired data sets and theory. Forward modeling from fundamental equations. Examples, experiments, and exercises from disciplines within geosciences. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (6) (Same as Ecology and Evolutionary Biology CM173.) Lecture, four hours; laboratory, three hours. 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 processes, such as tectonics and climate, 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 evolution and plate tectonics. Exploration of evolution and plate tectonics. Study of formation of matter offers tools to understand geologic process of climate and ecology of Earth. Past climate change to examine expected future human-influenced climate. Consideration of major events in history of life on Earth. Data and methods from geology, genetics, and geochronology are integrated to reconstruct past events. This re- veals how Earth processes, climate, and life shaped Earth. Concurrently scheduled with course CM273. Letter grading.

C179. Search for Extraterrestrial Intelligence: Theor- y 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) involves the measurement 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 algorithm development. Design of observational program, acquisition of telescopicedata, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C279. P/NP or letter grading.

M187. Careers in Earth System, Environment, and Space Sciences. (1) (Same as Atmospheric and Oceanic Sciences M187 and Environment M187.) Seminar, three hours. 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.

188. Special Topics in Earth, Planetary, and Space Sciences. (4) 100,000,000,000,000,000,000,000 10^15 kilometers. Examination of central role of science in understanding and addressing grand challenges in climate, earth and environment, and space exploration through seminars given by scientists, engineers, managers, and entrepreneurs from national laboratories and industry. Includes tours of National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory (JPL). Students engage speakers on science, career development, and internships, and building fulfilling careers. P/NP grading.

188HC. Honors Contracts. (1) Tutorial, three hours. Limited to Designated Honors Program. Designed as adjunct to upper-division lecture course. Indi- vidual 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.

193A-193B-193C. Current Research in 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 colloquia. May be repeated for credit. P/NP grading.

194. 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 related literature. May be repeated for credit. Concurrently scheduled with course C296. P/NP grading.


196. 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. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Introduction to Geophysics and Space Phys- ics I: Solid Earth and Planets. (4) Lecture, three hours. Requisites: Physics 105A, 110A, 112, 131. Geochem- istry, geochemistry, geophysics, dynamics of astronomical, chemical, mathematical, statistical, and computational principles. Cov- erage 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 algorithm development. Design of observational program, acquisition of telescopicedata, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C279. P/NP or letter grading.


208. Special Topics in Earth, Planetary, and Space Sciences. (4) Lecture, three hours. Introduction to basic physical processes (both exog- enic and endogenic) shaping solid surfaces in solar system and description of their optical and thermo- physical properties, with emphasis on 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/or participate in research related to formation and evolution of solar system and of other planetary systems. Description of star/planet formation process and subsequent evolu- tion of planetary systems by integrating observations and numerical modeling. Foster interdisciplinary and communication between Departments of Earth, Planete- rial, and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


209. Physical Geochronology. (4) Lecture, three hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural wa- ters, and magmas; construction and interpretation of phase diagrams; case studies of important geochem- ical and environmental processes. Concurrently scheduled with course C106. Additional independent research project and oral presentation required 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 geophysics and Space Physics, as well as related programs in department. Extensive survey of these methods, with focus on geophysical applications consistent with needs that geophysicists 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. Study of chemistry of Earth’s surface environment and biological processes, and their role on Earth history, activity, and geology. Introduction to origin and composition of Earth, including atmosphere, crust, and hydrosphere. Examination of how these reservoirs are affected by biogeochemical cycles and feedbacks to biogeochemical 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.

CM214A. Aquatic Geomicrobiology: Metabolisms. (4) (Formerly numbered CM214.) (Same as Atmospheric and Oceanic Sciences CM237A.) Lecture, three hours. Requisite: course CM14 A. Lecture, three hours. Requisite: course CM14 A. Lecture, three hours. Requisite: course CM14 A. Recommended: at least one lower-division Earth, planetary, and space sciences course. Intended for graduate life and physical sciences students. Study of chemistry of Earth’s surface environment and biological processes, and their role on Earth history, activity, and geology. Introduction to origin and composition of Earth, including atmosphere, crust, and hydrosphere. Examination of how these reservoirs are affected by biogeochemical cycles and feedbacks to biogeochemical evolution and diversity. Local and global-scale movements of biologically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course CM114A. S/U or letter grading.

CM214B. Aquatic Geomicrobiology: Environments. (4) (Same as Atmospheric and Oceanic Sciences CM237B.) Lecture, three hours. Requisite: course CM14 A. Lecture, three hours. Requisite: course CM14 A. Recommended: at least one lower-division Earth, planetary, and space sciences course. Intended for graduate life and physical sciences students. Study of chemistry of Earth’s surface environment and biological processes, and their role on Earth history, activity, and geology. Introduction to origin and composition of Earth, including atmosphere, crust, and hydrosphere. Examination of how these reservoirs are affected by biogeochemical cycles and feedbacks to biogeochemical evolution and diversity. Local and global-scale movements of biologically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course CM114A. S/U or letter grading.

M217. Molecular Evolution. (4) (Same as Ecology and Evolutionary Biology M231.) Lecture, two hours; discussion, two hours. Series of advanced topics in molecular evolution, with special emphasis on molecular phylogenetics. Topics may include nature of genome, rates of molecular evolution, molecular systematics, statistical tests, and phylogenetic algorithms. Themes may vary from year to year. May be repeated for credit. S/U or letter grading.

219. Planetary and Orbital Dynamics. (4) Lecture, four hours. Planetary rotations, satellite orbits, and tidal dissipation; planetary orbital system; resonance phenomena and orbits; orbit-orbit coupling; planetary rings. S/U or letter grading.

220. Principles of Paleobiology. (4) Lecture/discussion, three hours. Limited to graduate science students. Open to qualified undergraduate biological and physical sciences students in junior/senior standing 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 project; interpretation of exposed geologic structures. Resolu- tion of problems in Southern California geology from synthesis of new and published research. Field area varies from year to year. May be repeated for credit. S/U or letter grading.

222. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seism- ographic theory; explosion seismology; seismicity; focal mechanisms; surface wave analysis; microseisms and tsunamis. S/U or letter grading.


225. Physics and Chemistry of Planetary Interiors. (4) Lecture, four hours. Chemical compositions of Earth and planets; high-pressure and temperature ef- fects, phase transitions, and equations of state; varia- tions of density and depth; thermal and compositional evolution. 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 general principles of petrology based on geochron, tec- tonophysical, and other geological evidence and prin- ciples. Concurrently scheduled with course C126. Graduate students required to read more recom- mended references, make class presentations on par- ticular topics resulting from that reading, and lead seminar-type discussions on their selected topics. S/U or letter grading.

229. Introduction to Planetary Dynamics. (4) Lecture, three hours; laboratory/discussion, 90 minutes. Requi- sites: courses 200A, 200B, 200C. Designed for grad- uate students. Basic principles of planetary dynamo generation. Planetary core dynamics and core con- viction; mean field dynamo theory; kinematic dynamo theory; survey of modeling techniques and results. S/ U or letter grading.

M229. Planetary Atmospheres and Climates. (4) (Same as Atmospheric and Oceanic Sciences M231.) Lecture, three hours. Enforced requisite: Physics 1C. Planetary atmospheric structure and composition, ra- diative transfer, and climate dynamics. Topics include origin and evolution of the climate of Earth and Mars, atmospheric thermodynamics, plane- parallel radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hys- teresis. 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-ray, reciprocal lattice theory, single crystal X-ray methods, diffraction symmetry and elementary crystal structure analysis. S/U or letter grading.

231. Crystal Chemistry and Structure of Minerals. (4) Lecture, three hours; laboratory, three hours. Re- quisite: course 51. Bonding, interatomic configurations, polymeric transformations, isotypism, thermal and physical properties; survey of common minerals, and relation of physical and chemical prop- erties to crystal structure. S/U or letter grading.


234. Petrologic Phase Equilibria. (4) Lecture, three hours; discussion, three hours. Requisites: course 51, Chemistry 110B. Principles governing homogeneous and heterogeneous equilibria, with selected applica- tions to general stability relations of common petro- morphic rocks (fractional crystallization, partial melting, hydrothermal solutions, element partitioning in coexisting phases). S/U or letter grading.

CM254A-CM255A. Current Research in Geochemistry. (1–1) Seminar, one hour; tutorial, three hours. Preparation: to graduate Earth, planetary, and space sciences students. Semi- nars presented by staff, outside speakers, and grad- uate students stressing current research in Earth and planetary chemistry. May be repeated for credit. S/U grading.

M237. How to Write and Publish Scientific Papers. (4) (Same as Atmospheric and Oceanic Sciences M236A.) Lecture, three hours. Enforced requisite: planning to prepare or in the process of preparing manuscripts. Introduction to process of scientific manuscript writing and publishing. Offers insights into fun and frustration of manuscript writing, important rules for manuscript structuring and scientific lan- guage, and advice on how to deal with review pro- cess. Students gain familiarity with general principles of successful publishing process. Addresses different stages of manuscript writing and publishing by an- swering when are data ready for publishing, where to publish, how to structure manuscript, best way to present data, how to properly write which writing ethics to consider, how to effectively use cita- tion program, how to communicate with reviewers and editors, and efficient ways to manage manuscripts. S/U or letter grading.


240. Space Plasma Physics. (4) Lecture, three hours. Requisite: course 200C or Physics 210A. Physics of plasmas in space, including treatments based on magnetohydrodynamics and kinetic theory. Lander propagation to solar or planetary winds, steady-state magne- tospheres, magnetosphere convection, substorm processes, magnetic merging, field-aligned currents and magnetosphere/ionosphere coupling, ring current dynamics, and wave particle instabilities. S/U or letter grading.

C241. Basin Analysis. (4) Lecture, three hours; labo- ratory, three hours. Requisites: courses 103B, 111. Mechanisms of sedimentary basin development, flex- ural and thermal subsidence, isostasy, subsidence
242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisite or corequisite: course C141. Petrographic study of sandstones, with emphasis on depositional environments. Concurrently scheduled with course C143. S/U or letter grading.

243. 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 systems. Includes field-based laboratory component and builds on previous sedimentology basics. Concurrently scheduled with course C143. S/U or letter grading.

244. Tectonics of Sedimentary Basins. (4) Lecture, two hours; discussion, two hours; field trips. 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 systems. Includes field-based laboratory component and builds on previous sedimentology basics. Concurrently scheduled with course C143. 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. Seminar presented by staff, outside speakers, and graduate students on current research in tectonics. May be repeated for credit. S/U grading.

248. 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 structure, crystal chemistry, phase equilibria, and petrogenesis. S/U or letter grading.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and ancient sediments, structure and chemistry of upper mantle, geochemistry, cosmochemistry, and cosmochronology. S/U or letter grading.

253. Seminar: Petrology. (4) Seminar, three hours. Problems of igneous or metamorphic petrology; methods of evaluating physical conditions of metamorphism; diffusion in mineralogic systems; origin of ultramafic rocks and problems of mantle; element fractionations in oceanic and continental crust; other current subjects in field. S/U or letter grading.

255. Seminar: Structural Geology and Tectonics. (4) Seminar, three hours. Flow and fracture in Earth’s crust from microscopic to continental scale and in experiments. Examples may include metamorphic terranes, glaciers, plutons, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segregation of continental and oceanic crust. S/U or letter grading.

257. Seminar: Paleontology. (4) Seminar/discussion, three hours. Advanced topics in paleobiology, biostatigraphy, paleoecology, and paleobiogeography, with emphasis on relation to other disciplines. S/U or letter grading.

259. Seminar: Paleotectonics. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on Phanerozoic tectonics. S/U or letter grading.

260. 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 C160. S/U or letter grading.

261. Topics in Magnetospheric Plasma Physics. (4) Lecture, four hours. Lectures, discussions, and exercises on specific advanced topics in magnetospheric plasma physics. Previous courses examined magnetic storms, magnetospheric substorms, ultralow frequency waves, and adiabatic particle motion in Earth’s radiation belts. S/U or letter grading.


M263A. 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 fluid aspects, generalized Ohm’s law, 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 or letter grading.

264. Order of Magnitude Earth and Planetary Sciences. (4) Lecture, four 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 problem is tendency for rote memorization to take precedence over understanding. Discussion of basic problems from Earth science focused on problems appropriate to Earth, planetary, and space sciences, to inculcate physically based reasoning and promote effective on-your-feet communication. Attendance 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. Principles, testing, and operations of magnetometers and other in situ sensors, data sets, and analysis of data sets. S/U or letter grading.

M270A-M270B-M270C. Seminars: Climate Dynamics. (2 to 4 each) Same as Atmospheric and Oceanic Sciences M272A-M272B-M272C and Geography M270A-M270B-M270C. Seminar, two hours. Archaeological, geological, micropalaeontological, and stratigraphic evidence for climate change throughout geological past. Rhythmology 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 scale. May be repeated for credit. S/U or letter grading.

CM273. Earth Process and Evolutional History. (6) Same as Ecology and Evolutionary Biology CM228.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introductory course in geology). Exploration of relationships between physical processes, such as tectonics and climate, and how they affect surface and upper-atmospheric processes including CO2 turnover, the greenhouse effect, and climate change. S/U or letter grading.

C279. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, two hours; laboratory, two hours. Enforced requisites: Mathematics 31B, Physics 11B, Requirement 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 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 telescope data, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C179. S/U or letter grading.

CM280. 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 atmospheres; nucleosynthesis, 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.


297. 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 grading.


299. 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.

299A-299B-299C. Space Physics Journal Club. (1–1–1) Seminar, one hour. Open to graduate 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.

299A-299B-299C. 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/or graduate students describing current research. Written reports required. May be repeated for credit. S/U grading.

CM299. Research Topics in Earth, Planetary, and Space Sciences. (1–1–1) 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 responsible for student placements and for credit. Concurrently scheduled with course C194. S/U grading.

270. Advanced Techniques in Geological Research. (2 to 4) Lecture, two to four hours. S/U grading.

275. Advanced Topics in Geology and Oceanic Sciences. (2 to 4) Lecture, two to four hours. S/U or letter grading.

377. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate,
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 tailor their studies 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
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.

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
College of Letters and Science
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Los Angeles, CA 90095-7246
Ecology and Evolutionary Biology
Graduate Office, 310-825-1959
Graduate e-mail
Undergraduate Office, 310-825-1680
Message Center
Michael E. Alfaro, PhD, Chair

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
Nathan J.B. Kraft, PhD
James O. Lloyd-Smith, PhD
Glen M. MacDonald, PhD (John Muir Memorial Endowed Professor of Geography)
Peter N. Nonacs, PhD
Lawren Sack, PhD
Van M. Savage, PhD
Barnett A. Schlinger, PhD
Karen E. Sears, PhD
H. Bradley Shaffer, PhD
Thomas B. Smith, PhD
Victoria L. Sork, PhD
Tina I. Treude, PhD

Professors Emeriti
Clifford F. Brunk, PhD
Martin L. Cody, PhD
Franz Engelmann, PhD
Arthur C. Gibson, PhD
Erich 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
Richard R. Vance, PhD
Blaire Van Valkenburgh, PhD (Donald R. Dickey Professor Emeritus of Vertebrate Biology)
Robert K. Wayne, PhD
Eduardo Zeiger, PhD
Cheryl Ann Zimmer, PhD
Richard K. Zimmer, PhD

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 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 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.


Faculty Committee
Michael S. Berry, PhD (Asian Languages and Cultures)
William M. Bodiford, PhD (Asian Languages and Cultures)
Michelle L. Carriger, PhD (Theater)
Torquill 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 M. Lippit, PhD (Asian Languages and Cultures)
William Marotti, PhD (History)
Sean A. Metzger, PhD (Film, Television, and Digital Media; Theater)
Kyeyoung R. Park, PhD (Anthropology, Asian American Studies)
Shu-mei Shih, PhD (Asian American Studies, Asian Languages and Cultures, Comparative Literature)
Michael F. Thies, PhD (Political Science)
Yinghui Wu, PhD (Asian Languages and Cultures)
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 combines essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as advanced in-depth exposure to some of them. Students may earn a BS degree in one of three different majors within the department: Biology (general biology); Ecology, Behavior, and Evolution; and Marine Biology. The majors build on similar lower-division introductory courses and differ primarily in the upper-division requirements. The Biology major is designed for students who desire exposure to a wide range of biological subjects. The remaining two majors—Ecology, Behavior, and Evolution and Marine Biology—provide more specialized instruction and strong preparation for employment or subsequent graduate study in the respective disciplines.

Graduate Study

The Master of Science (MS) and Doctor of Philosophy (PhD) degrees provide opportunities for advanced, concentrated study. The MS degree requires, in addition to specified coursework, completion of either a comprehensive examination or the performance of original research culminating in a thesis. The PhD degree requires independent and innovative research that ultimately results in a dissertation.

Undergraduate Majors

Biology BS

The Biology major is designed for students with a broad interest in biology who desire to pursue careers in a wide range of biological and related fields. It provides students with excellent background preparation for postgraduate training in medicine and other health sciences, in tracks leading to academic and public service careers in biology, in biological industries, and even in nonbiological careers such as business, agriculture, and law. Emphasis is on breadth of training to expose students to all levels of modern biology.

Learning Outcomes

The Biology major has the following learning outcomes:

- Broad understanding of basic biology concepts and principles across different levels of biological organization, from molecules to ecosystems
- Effective oral and written communication of scientific information
- Demonstrated understanding of the processes involved in new knowledge generation, including the scientific method, data collection, and data analysis
- Ability to critically evaluate scientific concepts presented in diverse media, from scientific articles to the popular press

Entry to the Major

Transfer Students

Transfer applicants to the Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

**Required:** Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL or 5A, 5B, and 5C.

**The Major**

Students must take two courses from each principle:

- **Evolution and Genetics:** Anthropology 120, 124P, 124Q, 124S, 128P, Earth, Planetary, and Space Sciences 116, Ecology and Evolutionary Biology 103, 108, 109L, 110, 111, 112, 113A, 113AL, 114A, 115, 117, 118, 120 (not open for credit to students with credit for course 185), 121, C126, 129, 130, 135, 136, 140, 143, 144, 144L, M145, 146, 149, 150, 150L, 160, 171, CM173, C174, 175, 181, 184, 185 (not open for credit to students with credit for course 120), 186, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics CM156, 158, Molecular Cell, and Developmental Biology 138, CM156, Society and Genetics M142

**Information Flow:** Anthropology 124P, 128P, Chemistry and Biochemistry C100, 153A, 166, Ecology and Evolutionary Biology 100, 100L, 116, 120 (not open for credit to students with credit for course 185), 121, 122, 125, C126, 129, 132, 134B, C135, 136, 137, 143, C146, 149, 150, 150L, 153, 156, 162, 162L, 168, 170 (not open for credit to students with credit for Physiological Science 166), 171, C172, C174, 176, M178, C178, 180A, 180B, 183, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics CM156, 101 and 101 (must be taken together to satisfy requirement), 103AL, 103BL, 109AL, 109BL, 123, CM156, 158, C185A, Molecular Cell, and Developmental Biology 100, 105, 118, 143, 144, 150, 150L, CM156, 165B, 168, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, 102, Physical and Biological Science 106, 111A, 111B, CM123, 124, C126, C127, 128, C130, 136, 138, 140, C144, M145, 146, 147, 149, C152, 154, 155, 165, 166 (not open for credit to students with credit for Ecology and Evolutionary Biology 170), 167, 173, 174, 175, M176, 177, M180A, M180B, M180C


Field Biology
The department offers three quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ), the Marine Biology Quarter (MBQ), and the joint Field Marine Biology Quarter (FMBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 113B, 114B, 118, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology quarters may occur during fall, winter, or spring quarter, depending on location and faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

Honors Program
An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B. Students do not need to apply for departmental honors. All students are reviewed for honors.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major
Each Life Sciences core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in three core curriculum courses, either in separate courses or repetitions of the same course, are ineligible for the Biology major.

A minimum of five upper-division courses for the major must be taken within the Ecology and Evolutionary Biology Department.

A minimum of two laboratory courses must be applied to one core principle only. Courses listed in multiple principles may not be applied simultaneously.

Field quarter instructors determine to which core principle courses apply (four requirements).

A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. The principal investigator determines to which principle the course applies, after the student’s work and 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 together to satisfy one course requirement. A maximum of one course requirement may be satisfied. A 6-unit course counts as one on the course requirements for the major.

With consent of the instructors and department, a maximum of 4 units of 200-level courses may be applied toward major requirements.

Ecology, Behavior, and Evolution BS
The Ecology, Behavior, and Evolution major is appropriate for students preparing for graduate study in ecology, behavior, and evolution or for employment in areas such as environmental biology, animal behavior, conservation, teaching, museum work, and governmental positions dealing with environmental issues of wide importance and impact. A strong field component involving study in terrestrial and marine locales such as coastal, desert, and mountain environments in California and the Southwest and in the Neotropics is required.

Capstone Major
The Ecology, Behavior, and Evolution major is a designated capstone major. Students apply theory and technique learned through four years of classroom and laboratory experience to their own independent projects. The main purpose of the capstone is to provide a unique field experience that involves designing and executing a research project. Students are aided in the scientific process of learning about a new ecosystem, developing relevant questions, designing conceptually based projects, troubleshooting and completing the work, and writing a publication-ready manuscript. They are also
expected to exhibit strong teamwork, problem-solving, and communication skills.

**Learning Outcomes**
The Ecology, Behavior, and Evolution major has the following learning outcomes:

- Demonstrated broad knowledge of fundamental aspects 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-defined questions and hypotheses, design of appropriate theoretical or empirical/experimental approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

**Entry to the Major**

**Transfer Students**
Transfer applicants to the Ecology, Behavior, and Evolution major with 90 or more units must complete the following introductory courses

- at least 12 units from the Field Biology Quarter (FBQ)
- Marine Biology Quarter (MBQ)

Refer to the **UCLA transfer admission guide** for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Life Sciences Core Curriculum**

- Required: Chemistry and Biochemistry 1A, 1B, 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, or Mathematics 31A or 31AL, 31B, 32A, and 4BL, or 5A, 5B, and 5C.

**The Major**

Students must complete the following courses:

- At least 4 morphology and systematics units (one course) from Ecology and Evolutionary Biology 101, 103, 105, 110, 111, 112, 113A, 113L, 114A, 115, 117, 130, 140, 144L, 144L, M157, or 184.
- At least 4 physiology units (one course) from Ecology and Evolutionary Biology 117, M157, 162, 162L, 170, Physiological Science 165, or 166.
- Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166.
- At least 12 ecology, behavior, and evolution units (three courses) from Anthropology 128P; Ecology and Evolutionary Biology 100, 113A, 113L, 116, C119A, C119B, 120, 121, 122, 126, 128, 129, 130, 133, C135, 136, 137, 142, 143, 144, 144L, C146, 149, 150, 150L, 151A, 152, 153, 154, 155, M157, 161, 162, 168, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, M178 (or Bioengineering CM186 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.
- One capstone field quarter consisting of 12 to 16 units from the Field Biology Quarter (FBQ), Marine Biology Quarter (MBQ), join Field Marine Biology Quarter (FMBO), or pre-approved equivalent (see undergraduate adviser).
- 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 (except Microbiology 183A, 183L, 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

**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 (JFMBO). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 113B, 114B, 114L, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology quarters may occur during fall, winter, or spring quarter, depending on location and faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

**Honors Program**
An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B. Students do not need to apply for departmental honors. All students are reviewed for honors.

**Computing Specialization**
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Policies**

**Preparation for the Major**
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**The Major**
A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses offered as part of the Field Biology Quarter (FBQ) are open to all qualified students, but strict priority is given to students who are Ecology, Behavior, and Evolution majors, are graduating seniors, have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Ecology, Behavior, and Evolution majors must earn a C– or better in each course taken as preparation for the major.
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

Entry to the Major

Transfer Students

Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Atmospheric and Oceanic Sciences 1 or Earth, Planetary, and Space Sciences 15; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B, Life Sciences 7A, 7B, 7C, 7L, Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

The Major

Students must complete the following courses:

1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 units of marine organismic biology or physiology (one course) from Ecology and Evolutionary Biology 101 (unless taken under item 2), 105 (unless taken under item 2), 107, 112, 117, 128, 140, 142, 170 (unless taken under item 2), 121, 174, 181, or Physiological Science 166. Students with credit for credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
4. At least 4 units of ecology and behavior (one course) from Anthropology 128P Ecology and Evolutionary Biology 100, 116, C119A, C119B, 122, C126, 128, 129, M131 (or Geology M101), 133, 136, 137, 140, 142, 143, C146, 151A, 151B, 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 M125S (or Society and Genetics M142), Ecology and Evolutionary Biology 116, 117, 120, 121, 130, 133, C135, 140, 143, 144, 144L, C146, 149, 150, 150L, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 175, 184, 185, 186, or Life Sciences 107 (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
6. One capstone field quarter consisting of 12 to 16 units from the Marine Biology Quarter (MBQ) or pre-approved equivalent (see undergraduate advisor)
7. One additional physical, chemical, or geological oceanography course from Atmospheric and Oceanic Sciences 102, 103, 104, M105 (or Ecology and Evolutionary Biology M139), 130, Chemistry and Biochemistry 103, 153A, Earth, Planetary, and Space Sciences 100, 116, C141, 153, Ecology and Evolutionary Biology M131 (or Geography M110), 153, 199B, 199, Geography 101, M118 (or Atmospheric and Oceanic Sciences M106), 130, 182A, Mechanical and Aerospace Engineering 103, 130A, or Molecular, Cell, and Developmental Biology 172

Field Biology

The department offers three quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ), the Marine Biology Quarter (MBQ), and the joint Field Marine Biology Quarter (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 113B, 114B, 118, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 125A, 125B, 132B, 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.

**Policies**

**Preparation for the Major**

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**The Major**

Credit for 199 courses from other departments may not be applied. With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements. Each course applied toward requirements for 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 toward 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 109L prior to participating in the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology quarters.

**Undergraduate Minors**

**Conservation Biology Minor**

The Conservation Biology minor is designed for students who wish to augment their major program of study with courses addressing issues central to the conservation and sustainability of biodiversity and natural ecosystem processes. The minor seeks to provide students with a greater depth of experience and understanding of the role that science can play in developing conservation policy.

**Admission**

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 7B and Ecology and Evolutionary Biology 100 with minimum grades of C or better, and (3) submit a petition through Message Center to the Undergraduate Advising Office. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Conservation Biology should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are requisites to some of the upper-division courses accepted for the minor.

**The Minor**

**Required Lower-Division Course (5 units):** Life Sciences 7B.

**Required Upper-Division Courses (28 units minimum):** Ecology and Evolutionary Biology 100, and four to six courses (24 units minimum) from 100L, 101, 105, 109, 109L, 111, 112, 113A, 113AL, 114A, 114B, C119A, C119B, 122, M127 (or Environment M102 or Geography M102), 129, M131 (or Geography M110), 140, 142, 143, 144, 144L, C146, 149, 151A, 152, 153, 154, 155, 161, 162, 162L, 168, C174, 176, 180A, 180B, 183, 184, Geography 102, 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 of 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, psychology, and zoology with medicine to create new paradigms for investigating and understanding disease. The minor provides students with a greater depth of experience and understanding of the integration of evolutionary biology and medical education.

**Admission**

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 7B and Ecology and Evolutionary Biology 100 with minimum grades of C or better, and (3) submit a petition through Message Center to the Undergraduate Advising Office. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Evolutionary Medicine should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are requisites to some of the upper-division courses accepted for the minor.

**The Minor**

**Required Lower-Division Course (5 units):** Life Sciences 7B.


**Required Research Project or Internship (4 units minimum):** Ecology and Evolutionary Biology 198A and 198B or 199 or a suitable research internship from another department, and must be taken for letter grades.

Participation in the Annual Biology Research Symposium (Poster Session) sponsored by the department in spring quarter is highly recommended.

**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.
Graduate Major

Biology MS, C Phil, PhD

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.

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.


14. Why Ecology Matters: Science Behind Environmental Issues. (6) 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 (e.g., global climate change, biodiversity loss, deforestation, pollution, declining water resources, declining fisheries). Environmental literacy to equip students to become leaders in growing green economy and to help forge solutions to current and future environmental crises that threaten natural resource base. P/NP or letter grading.

15. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise, and illuminating many paths of discovery at UCLA. P/NP grading.

21. Field Biology. (4) Lecture, three hours; discussion, two hours, or field trips, three to four hours. Recommended preparation: Life Sciences 15. Not open for credit to students with credit for course 122 or Life Sciences 1. Introduction to natural history of Western North America, especially southern California. Classification, distribution, and ecology of common plants and animals. P/NP or letter grading.

25. Living Ocean. (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.

50. Desert Life. (4) Lecture, three hours; laboratory, two hours. Introduction to fundamental structural, physiological, and behavioral features of desert organisms, with special emphasis on deserts of Western North America. P/NP or letter grading.

87. California’s DNA: Field Course. (1) Lecture, one hour; fieldwork, four hours (every other week). Limited to freshmen. Students join CALeDNA community science program and do fieldwork to sample soil and sediments in California. Familiarization with University of California natural reserves spanning coast to woodland, and desert to mountains. Analysis of samples for DNA to capture insights into local biodiversity. Prepares students for more intensive, related upper-division science course. Guided Saturday field trips or independent trips. 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. May be applied toward for eligible upper-division students. Honors content noted on transcript. P/NP or letter grading.

95. Lower-Division Internship in Biology. (4) Tutorial/workshop, three hours per week per unit. Internship course for lower-division students to be supervised by Center for Community Learning, fieldwork site, and faculty advisor. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP grading.


97. 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.

97XA. PEERS Freshman Seminar: Succeeding in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures, workshops, and discussions to enhance 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, and careers available to students with science degrees. P/NP grading.

97XB. PEERS Sophomore Seminar: Pathways in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures and workshops to enhance students’ knowledge of science by acquainting students with practice of science, opportunities available to participate in research as undergraduate students, and careers available to students with science degrees. P/NP grading.

97XC. AAP Freshman Seminar: Succeeding in Science Majors and Careers. (1) Seminar, one hour. Limited to science majors in Academic Advancement Program (AAP) who took Mathematics 1 in fall term, Series of lectures, workshops, and discussions designed to enhance students’ success in sciences by developing critical academic survival skills, acquainting students with campus resources, introducing students to practice of science, and highlighting opportunities available to participate in research as undergraduate students. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of major. 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. Requisites: Life Sciences 7B. Not open for credit to students with credit for course 118, 122, 124A, 124B, 125, C126, 129, 132, 134B, 136, or 151B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities 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 (may be taken concurrently). Life Sciences 1 or Introduction to research methods in ecology and behavior, resulting in independent research proposals and to gain understanding of scientific method, critical evaluation of research papers, and development of scientific writing skills. Involves work outside and off-campus meetings. To apply this course to the Biology upper-division major laboratory requirement, the corresponding lecture course must be completed with a passing grade. Letter grading.

101. Marine Botany. (6) Lecture, four hours; laboratory, six hours; three to four field trips. Requisites: Life Sciences 1 or 7B. Introduction to biology and ecology of marine plants, including algae, sea grasses, and mangroves, with focus on form and function of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.

102. Biology of Marine Invertebrates. (4) Five-week intensive course. Lecture, one hour; laboratory, 15 hours. Requisite: Life Sciences 1 or 7B. Morphology, systematics, life histories and natural history, ecology, behavior, and physiology of marine invertebrates. Offered off campus at marine science center. P/NP or letter grading.

103. Plant Diversity and Evolution. (5) Lecture, three hours; laboratory, three hours; field trip. Requisites: Life Sciences 1 and 4, or 7A and 7B. Introduction to green plant tree of life, with emphasis on using phylogenetic perspective to examine major transitions in plant evolution, including evolution and diversification of land plants, vascular plants, seed plants, and currently ecologically dominant flowering plants. Introduction to phylogenetics, providing overview of theory and methodology to reconstruct and use phylogenetic trees to study organismal evolution. Exploration of 700 million years of plant evolution, with emphasis on morphological, functional, ecological, and biogeographical perspectives. Letter grading.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory, two hours; field trips. Requisites: Life Sciences 1 and 4, or 7A and 7B. Introduction to invertebrates, with an emphasis on understanding diversity and function of major invertebrate phyla. Focus on the evolution and current function of each phylum. Letter grading.

106. Experimental Marine Invertebrate Biology. (4 or 6) Lecture, two hours; laboratory, 12 hours. Requisites: 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 weekend field trips. Requires: course 105 or completion of Marine Biology Quarter. Advanced invertebrate biology course exploring evolutionary relationships 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, three hours; discussion, one hour. Requires: 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, 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. (4) Laboratory, four field trips; lecture, 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. Requires: Life Sciences 1, 2, and 3, or 7A and 7B. Study of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult 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. Requires: Life Sciences 1 or 7B. Adaptations, behavior, functional morphology of reptiles 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 expertise and field experiences. Letter grading.

113AL. Herpetology Laboratory. (4) Laboratory, six hours; field trips. Corequisite: course 113A. Primary focus on systematics, biogeography, behavior, and evolution of reptiles and amphibians. Natural history of world’s reptile and amphibian fauna, with special focus on California species. Field trips to observe living species in field, including one extended three- to five-day field trip. Letter grading.

113B. Field Herpetology. (8) Requires: Life Sciences 1. Recommended: courses 100, 111. Two weeks of off-campus research projects followed by two-week lecture course and offered only as part of Field Biology Quarterly. Biology, particularly ecology and behavior, of reptiles and amphibians in their natural habitat. Students carry out supervised research projects, then write up and orally present their results in seminar fashion. Letter grading.

114A. Ornithology. (5) Lecture, three hours; laboratory, three hours; field trips, three hours. Requires: Life Sciences 1 or 7B. Adaptations, behavior, functional morphology of birds in their natural habitat. Letter grading.

114B. Field Ornithology. (8) Requires: Life Sciences 1, or 100. Two to three weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarterly. Biology, particularly ecology and behavior, of birds in their natural habitat. Letter grading.

115. Mammalogy. (5) Lecture, three hours; laboratory, three hours. Requires: Life Sciences 1 or 7B. Topics in mammalian biology, including evolution, ecology, behavior, functional morphology, systematics, physiology, and biogeography. Letter grading.

116. Conservation Biology. (4) Lecture, three hours; discussion, two hours. Requires: Life Sciences 1 or 7B. Recommended: course 100. Not open for credit to students with credit for Environment 121. Study of ecology and evolution as they apply to preservation of genetic, species, and ecosystem diversity. Discussion sections focus on interactions of science, policy, and economics in conserving biodiversity. Oral and written student presentation on specific conservation issues. Letter grading.

117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Recommended requisite: course 110. Survey of origin and evolution of vertebrates through examination of fossil record. Focus on fossil record of tetrapods, with emphasis on anatomical and physiological transformations in amphibians, reptiles, birds, and mammals. Letter grading.

118. Plant Adaptations. (6) Lecture, one hour; field trip, 10 hours. Requires: course 100. Five-week course offered only as part of Field Biology Quarterly. Field-oriented introduction to mechanisms by which vascular plants adapt themselves to their 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, two hours. Requires: Survey of origin and evolution of vertebrates through examination of fossil record. Focus on fossil record of tetrapods, with emphasis on anatomical and physiological transformations in amphibians, reptiles, birds, and mammals. Letter grading.

C119B. Modeling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Recommended requisite: course C119A. 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, fitting models to data, sensitivity analysis, presentation of model results, and other topics from current literature. Concurrently scheduled with course C219A. P/NP or letter grading.

C119B. Mathematical and Computational Modeling in Ecology. (4) Lecture, discussion, two hours. Requires: Life Sciences 1 or 7B. Recommended: course 120. Offered either as 4- or 8-unit quarter-long course or as 8-unit Field Biology Quarterly course. Evolutionary perspective of behavioral ecology, with extended consideration of selfish DNA, conflict with genomes, natural selection and coevolution, kin selection and diversity in group functioning and cooperation, social learning, game theory and alternative life histories, and human behavioral ecology. Eight-unit course covers several major areas in animal behavior more broadly, including foraging, sexual selection and predator-prey interactions in five intensive weeks, followed by extended field trip where students do individual projects. Concurrently scheduled with course C242. Letter grading.

M127. Soils and Environment. (4) Same as Environment M102 and Geography M102. Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; man management of soils as related to plant growth and distribution. P/NP or letter grading.

M127L. Soils and Environment: Field. (1) Same as Environment M102L and Geography M102L. Lecture, one hour; field excursions. Corequisite: course M127. Investigations and demonstrations supporting material in course M127, including excavating, collecting and naming soils in field, soil forming processes, geomorphology, and soils. P/NP or letter grading.
128. Plant Physiological Ecology. (9) Lecture, three hours; laboratory, three hours; one-two day field trip. Requisites: Life Sciences 1 or 7B, Physics 1C and 4BL, or 5B or 6C. Study of plant/environment interactions under natural conditions. Transpiration and photosynthesis, leaf and water movement in soil/plant/atmosphere continuum. Letter grading.

129. Animal Behavior. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B. Introduction to behavioral ecology. Methods and theories applied to study of animal behavior, including foraging strategies, social competition, sexual selection, mating systems, cooperation, and social organization. Letter grading.


M131. Ecosystem Ecology. (4) Same as Geography M110. Lecture, three hours; field trips. Requisite: Geography 1 or Life Sciences 7B. Designed for juniors or seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energy and nutrient cycling. Plants, plants, and microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

132. Field Behavioral Ecology. (8) Lecture, two hours; laboratory/field trip, 10 hours. Requisites: course 100, Life Sciences 1 or 7B. Recommended: course 129. Five-week course offered only as part of Field Biology Quarter. Field research in behavioral ecology, emphasizing animal communication. Design and execution of individual and small group field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, three hours; discussion, one hour; laboratory, two hours. Requisites: Life Sciences 1, 2, 3, 4, 23L, and Mathematics 3A, 3B, and 3C, or 31A and 31B, or Life Sciences 30B. Strongly recommended: elementary statistics course. Introduction of basic core mathematical ideas and models necessary to understand contemporary ecology and evolutionary biology. Population ecology and growth, community ecology, population genetics, natural selection. P/NP or letter grading.

134B. Field Physiological Ecology of Desert Animals. (8) Fieldwork, 15 hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Two weeks of off-campus course work with 2-2.5 hours of lecture and lab, and 2.5 hours of field study. Lecture, three hours; discussion, one hour; field trips. Requisites: Life Sciences 1, 3A, 3B, and 23L. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival in arid habitat. Students carry out supervised research projects, then write up and orally present their results in seminar fashion. Letter grading.


136. Ecological Restoration. (6) Lecture, two and one half hours; laboratory, three hours; three field trips. Requisites: course 100, Life Sciences 1 or 7B. Study of ecosystems that have been degraded by overuse or unsustainable extraction of natural resources, foundation of restoration ecology including historical knowledge, reference sites, soil preparation, biodiversity, California natives, succession, and water availability, and best management practices when restoring landscape. Students learn to identify classic symptoms of unhealthy ecosystem and important metrics to determine if an ecosystem is recovering. Students evaluate Stone Canyon Creek at UCLA. Students develop site and vegetation maps, conduct soil and water tests, and assess overall health of area. Students develop recommendations for restoration plan. Mandatory all-day field trip. Letter grading.

137. Chemical Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30BL. Life Sciences 1, 2, 3, 23L. Chemical signals are most important means by which chemical information is transmitted. How chemical signals are produced, transported, and influence behavior of microbes, plants, and animals. Synthetic approach, with emphasis on applications to cell biology, physiology, and ecology. P/NP or letter grading.

M139. Introduction to Chemical Oceanography. (4) Same as Atmospheric and Oceanic Sciences M105. Lecture, three hours; discussion, one hour. Introduction to course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, 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; discussion, one hour. Requisite: Life Sciences 1 or 7B. Examination of evolution, systematics, natural history, anatomy, physiology, and conservation of mammals secondarily adapted to life in oceans: cetaceans, pinnipeds, sea otters, and polar bear. Through lectures and readings from recent primary literature, students gain understanding of special adaptations to mammalian life in aquatic environment, roles of marine mammals in marine ecosystems, and general principles of marine mammal population biology. Study of historical and contemporary exploitation, conservation, and management of marine mammal stocks. Letter grading.

142. Aquatic Communities. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Overview of species and communities in marine and freshwater environments. Exploration of interactions of species and role of local factors in determining the fates of marine mammals. Letter grading.

143. Viral Ecology and Evolution. (6) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 7A, 7B, 7C, 23L. Viruses are most common biological entity on planet, and have broad-ranging ecological and evolutionary environmental and medical impacts. This makes understanding roles of viruses in ecosystem critical to understanding how ecosystems work, how microorganisms change over time in face of viral infection, how viral pandemics occur and progress, and how many human diseases affect individual health. Students gain comprehensive understanding of how viruses operate in environmental and medical systems, and how they and their hosts evolve over time; and reason about processes that affect impacts of viruses in changing ecosystems, and on human societies and health. Emphasis on development of mechanistic understanding of viruses. Letter grading.

144. Prehistoric California. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Survey of life as illustrated in fossil record of California. Emphasis on how faunas have changed over time, especially during periods of sea level change and extinction. Relation of influence of major events of geologic, climatic, and environmental change on living organisms to environmental change on human timescales. Emphasis on how scientists collect evidence of these fossil and modern life data through understanding of living organisms. Letter grading.

144L. Prehistoric California Laboratory. (4) Laboratory, three hours. Requisites: course 144. Survey of major groups of organisms from oceans and on land that can be found in fossil record of California, and relation of them to some of major events in history of life. Emphasis on how faunas have changed over time, especially during periods of diversification and extinction. Consideration of what can be ascertained about life and environments of past from fossils of California and rocks that contain them. Letter grading.

M145. Advanced Paleontology. (4) Same as Earth, Physical and Biological Sciences M116. Lecture, three hours. Requisite: course 110 or 117 or Earth, Planetary, and Space Sciences 116. Consideration of major factors that have influenced history of life, including 260 million years of causes of extinction; different fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phylogenetics, and developmental biology. P/NP or letter grading.

C146. Conservation Genetics. (4) Lecture, three hours; discussion, one hour. Requisites: course 150 or Life Sciences 107, Life Sciences 7A, 7B, 7C. Conservation genetics is interdisciplinary field that integrates genetic methods and concepts from population genetics, evolutionary biology, molecular ecology, and systematics to understand how to conserve and manage populations and species of natural organisms, and understand genetic processes underlying why some go extinct. Case studies of plants and animals cover range of topics including habitat loss, population genetics, and intraspecific landscape exchange and genetic connectivity of populations; climate change and local adaptation management of wild and natural populations; and invasive species. Concurrently scheduled with course C246. Letter grading.

147. Biological Oceanography (4) Five-week intensive course. Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 14A, 14B, or 14BL, or 20A, 20B, 20L, and 30AL. Life Sciences 1, 2, 3, and 23L. Introduction to basic principles of physical oceanography, and principles of marine ecosystems. Laboratory includes physical, chemical, and biological factors affecting abundance and distribution of organisms in marine environment. Laboratory includes experimental study of local marine ecosystems, with emphasis on primary and secondary production and nutrient flux. Letter grading.


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 genomic composition of populations and whole species. Study of how evolutionary forces of mutation, drift, selection, recombination, and migration can change genomes. Analysis of genomic data for evolutionary insights. 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 is 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 basic genetics for understanding. 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. Students gain understanding of some social implications of various aspects of genetics, and tools necessary to form informed opinions on issues as society.

C150. Principles of Genetics Laboratory. (4) Laboratory, four hours. Corequisite: course 150. Genetics is most diverse and most 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, and skills to ask and answer questions using genetic techniques. Letter grading.

151A. Tropical Ecology. (4) Lecture, one hour; discussion, two hours. Requisites: Life Sciences 1 or 7B. Broad introduction to global change, community structure, and dynamics and ecosystem function of range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal-plant community interactions, 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. Analysis 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. Requisites: Life Sciences 1 or 7B. Diversity of physiological and ecological adaptations of plants in biomes of world, planning distribution and dynamics of world vegetation types. Focus on processes across scales from cells to ecosystem to globe, instrumentation for environmental studies and ecophysiological measurements, and experiments used to make discoveries about plant adaption. Letter grading.

153. Physics and Chemistry of Biotic Environments. (4) Lecture, three and one half 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 that are critical to functional responses by organisms to their habitats. Focus is integrative, providing comprehensive training in basic 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 allothetic scaling of metabolism and effects of temperature on physiological function. Fundamentals of boundary-layer physics and their role in organism's life history. Physics as natural life process, including how organisms are mechanistically structured to avoid, resist, or comply to fluid (air and water) motion. P/NP or letter grading.

154. California Ecosystems. (5) Lecture; three hours; laboratory or field trip, four hours. Requisite: 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. Recommended: course 100 or 122. 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 or absent from particular assemblages. Examination of how communities organize themselves and evidence, both observational and experimental, bearing on these theories. Consideration of diverse array of communities—plant, animal, microbial, terrestrial, and marine—to gain appreciation of evolutionary history, diversity and history 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 inequality. Letter grading.

157. Biology of Superheroes: Exploring Limits of Form and Function. (4) (Same as Society and Genetics 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 contemporary scientific literature to explore bizarre phenomena in natural world and delve into basic scientific theory and principles. Topics covered include evolution, genetics, physiology, biochemistry, behavior, and biology of intelligence among others. Students synthesize primary literature on diverse subjects presented. Letter grading.

158. Introduction to Diversity, Health Disparities, and Environment. (2) Seminar, one hour; discussion, one hour. Requisite: Life Sciences 7B. Focus on intersection of health disparities and environment. Seminar includes guest lecturers focused on environmental determinants of health. Students focus on careers addressing health disparities. Discussion where students deconstruct research talks to better understand science and how research on health disparities is conducted. Entry course for three-quarter UCLA-Howard Hughes Medical Institute Health Disparities program. Letter grading.

159. Biological Modeling: Mathematical and Computational Approaches (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 in all required courses. Physics 1A, 1B, and 1C, or 5A, 5B, and 5C, with grades of C or better. Students learn how to translate their biological knowledge and intuition into mathematical models of population interactions and how to interpret and glean biological insights from quantitative results and predictions. Review and integration of core mathematical and computational approaches in novel ways. Students gain experience in formulating and intuition about systems through many examples across range of biological levels, such as predator-prey, disease transmission, cancer initiation, cell migration, neural systems, vascular networks, sleep, drug interactions, gene expression, and more. Students learn how to manipulate data, basics of coding, and how to instantiate their mathematical models 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. Introduction to aspects of plant biology. Topics include plant form and function, distribution and adaptation, plant diversity, gene expression, and basic plant function. Letter grading.

161. Plant Ecology. (4) Lecture, two and one half hours; seminar, three hours. Life Sciences 1 or 7B. Introduction to ecology of terrestrial plants, including plant species as individuals, populations, communities, and ecosystems. Topics include plant form and function, seed dispersal, life history, disturbance, succession, community structure and dynamics, and global change. P/NP or letter grading.


162L. Plant Physiology and Ecophysiology Laboratory. (4) Laboratory. Requisites: courses 152 or 162 (may be taken concurrently), Life Sciences 2, 3, 23L, or 7A, 7B, 7C, and 23L. Basics of plant function, including photosynthesis, biochemistry, and physiological aspects of photosynthesis. Carbon and nitrogen metabolism and its regulation, organelle interactions and compartmentation. Water relations, transport, flowering, hormone action, and plant responses to stress. Letter grading.

163. Biology of Marine Tetrapods. (4) Lecture, five hours; laboratory, three hours. Requisites: Chemistry 14A, 14B, and 14BL or 20A, 20B, 20L, Life Sciences 1, 3, 23L. Recommended: Life Sciences 30B or Mathematics 3C or 32A, Physics 1C and 4BL, or 5B or 6C and 6CH. Five-week intensive course offered only as part of Marine Biology Quarter. Survey of higher vertebrates living in marine habitats, including estuarine amphibians, marine reptiles, seabirds, and marine mammals. Laboratory emphasis on observational and experimental approaches to study of morphology, systematics, ecology, and behavior of local marine birds and mammals. Given off campus at marine science center. Letter grading.


165. Ecological Physiology of Marine Vertebrates. (4) Lecture, five hours; laboratory, 15 hours. Enforced requisites: Chemistry 14B and 14BL, or 20B and 30AL, Life Sciences 1, 3, 23L. Recommended: Life Sciences 30B or Mathematics 3C or 32A, Physics 1C and 4BL, or 5B or 6C and 6CH. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physical environmental challenges. Marine system and its variability, carbon cycle and related chemical processes, and major marine habitats. Given off campus at marine science center. Letter grading.


170. Animal Environmental Physiology. (6) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 4, and 7A or Life Sciences 7B, 7C, and 23L. Introduction to physiological function of animal organs and organ systems, with emphasis on environmental interactions and ecological adaptations. Letter grading.
Lecture, three hours; discussion, one hour. Across phylogenetically broad range of species, individuals in same developmental stage of life share vulnerabilities and similar challenges. Exploration of shared challenges facing animals and plants from juvenile to adult stages. Study of predators and parasites. Letter grading.

C173. Earth Process and Evolutionary History. (8) (Same as Earth and Planetary, and Space Sciences CM173.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introductory course in geology). Exploration of relationship between physical processes, such as tectonics and climate, and how they affect surface and impact biological history of Earth. Study of evolution of universe, Earth, and life, with integration of history of science, including Darwinian evolution and plate tectonics revolutions. Study of formation of matter offers tools to understand geologic process of climate and ecology of Earth. Past climate change to examine expected future human-influenced climate. 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 re-veals how life and the shapes shaped life and how life shaped Earth. Concurrently scheduled with course CM228. Letter grading.

C174. Comparative Biology and Macroevolution. (4) Lecture, three hours; laboratory, three hours. Requisite: Life Sciences 1 or 7B. Introduction to comparative and/or phylogenetic methods used to test macroevolutionary hypotheses. Concurrently scheduled with course C230. Letter grading.

C175. 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 those of man. Honors version available. Letter grading.

C176. 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, two hours. Requisite: Life Sciences 1 or 7B. Introduction to fundamental skills needed for manipulation, analysis, and visualization of large data sets. Basic programming and scripting in Python as well as working in shell, regular expressions, and related topics. Concurrently scheduled with course C234. Letter grading.

C178. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering CM186, Computational and Systems Biology CM186, and Computer Science CM186.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Mathematics 32A or M32T, 33A, and/or 33B; or Mathematics 31A, 31B, or M32T, 33A, and 33B. Dynamic bio-system modeling and computer simulation methods for studying biological systems and systems at multiple levels of organization. Intermediate linear and nonlinear control system, multicompartiment, epidemiological, physical, and other biophysical methods applied to life sciences problems at molecular, cellular, organ, and population levels. Both theory- and data-driven modeling, with focus on context and analysis of how data and dynamic models of systems can lead to new hypothesis generation and/or (informal e.g., video, brochure, digital media, etc.) forms of science communication. Students also create reflective communication piece (written, podcast, video) about what they learned through process of research that could be shared with broad audience. Concurrently scheduled with course C237. Letter grading.

C179. Communicating Science to Informal Audiences. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 138B, 137. Science communication is essential skill for advancing scientific research and society. Students work collaboratively to communi-cate results of original research using formal (e.g., written paper and poster/multimedia presentation) and/or informal (e.g., video, brochure, digital media, etc.) forms of science communication. Students also create reflective communication piece (written, podcast, video) about what they learned through process of research that could be shared with broad audience. Concurrently scheduled with course C237. Letter grading.

C180A-180B. Seminars: Biology and Society. (2–4) Lecture, five hours; laboratory, six hours. Requisites: Life Sciences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Introduction to principles, biology, and genetic factors. Letter grading.


C182. Marine Parasitology. (4) Lecture, five hours; laboratory, two and one half hours. Recommended: courses 112, 181. Study of host-parasite interaction involving intertidal fish hosts. Laboratory includes collection and preparation techniques. Given off-campus at marine science center.

C183. Finding Ecological Solutions to Environmental Problems. (4) Seminar, two hours; discussion, two and one half hours. Requisite: course 100. Ecological practicum in which students work in teams with client (e.g., non-profit, research lab, etc.) to propose solutions to diverse ecological problems. Students learn practical skills to apply ecological science to solving of diverse and interdisciplinary environ-mental problems, in intimate and participatory environ-ment. Students learn and are expected to produce high-quality academic work at professional level. Letter grading.

C184. 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 develop-mental mechanisms are disrupted by environmental and genetic factors. Letter grading.

C185. 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 biology and medicine. Introduction to mechanics and processes of evolution, with emphasis on natural selection, population genetics, specialization, evolutionary medicine. Understanding the principles of evolution. Letter grading.

C186. Evolutionary Medicine: Clinical Perspective on Medical, Surgical, and Psychiatric Disorders. (4) Lecture, three hours; discussion, one hour. From breast cancer and heart failure to self-injury, obsess-ive-compulsive and eating disorders, all contempo-rary medical issues have evolutionary roots. Under-standing of application of evolutionary thought to issues faced by physicians, veterinarians, psycholo-gists, and other healthcare providers. Development of an expanded understanding of the roots of these disorders provides future healthcare providers with expanded perspective that enhances their prac-tice and benefits their patients in whatever field they enter. Letter grading.

C187. Variable Topics in Ecology and Evolutionary Biology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Investigation, discussion, and study of current important issues involving substantial biological considerations in ecology and evolutionary biology. Contact Undergraduate Advising Office for current topics. May be repeated for credit. P/NP or letter grading.

C188. Special Courses in Ecology and Evolutionary Biology. (2) Seminar, two hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty. May be repeated for credit. P/NP or letter grading.

C188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilita-tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


C188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 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.

C189. 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. May not be repeated. Letter grading.

C189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Des-ignated as adjunct to upper-division lecture course. In-cludes with lecture course for USIE faculty mentor to explore topics in greater depth through supplemental read-ings, papers, or other activities. May be repeated for
maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Ecology and Evolutionary Biology. (1 Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

191. Variable Topics Research Seminars: Ecology and Evolutionary Biology. (4) Seminar, three hours. Seminars on current issues in research in ecology and evolutionary biology. Consult Schedule of Classes for topics. Each topiccontent is approved in advance by Undergraduate Advising Office, undergraduate departmental majors may petition to use course to satisfy or partially satisfy elective requirement. May be repeated for credit with consent of instructor. P/NP or letter grading.

192A-192B. Undergraduate Assistant in Ecology and Evolutionary Biology. (4-2) Seminar, 12 hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practice for advanced undergraduate students in assisting with courses related to biology. Students assist in preparation of materials and development of innovative programs. Graded on a satisfactory/unsatisfactory basis. Application must be submitted to the Undergraduate Advising Office for further information. May not be applied toward course requirements for departmental majors. May be repeated for credit. P/NP grading.

193. Journal Club Seminars: Ecology and Evolutionary Biology. (1 Seminar, two hours. Enforced corequisite: one course from 198A through 198D or 199. Limited to undergraduate students. Development of in-depth understanding of and ability to discuss current literature in field of students’ own research. May be repeated for credit. P/NP grading.

194A. Research Group or Internship Seminars: Access to Resources. (2) Seminar, six hours. Enforced corequisite: one course from 198A through 198D or 199. Designed for juniors/senior in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of paper selected from current literature. No more than 4 units may be applied toward departmental majors. May be repeated for credit. Letter grading.

194B. Research Group or Internship Seminars: Ecology and Evolutionary Biology. (1 Seminar, two hours. Corequisite: one course from 198A through 198D or 199. Designed to encourage participation and stimulate curiosity and interest in specific research areas for undergraduate students who are part of departmental research group or internship. Discussion of use of specific research methods and current literature in field of or research of faculty members or students. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Ecology and Evolutionary Biology. (4) Tutorial, 12 hours. Internship course for juniors/seniors to be supervised by Center for Community Learning, fieldwork site, and faculty advisor. Consult Undergraduate Advising Office for more information. Students meet on regular basis with faculty advisor to provide periodic reports of their experience. May not be applied toward requirements for departmental majors. May be repeated twice for credit. Individual contract with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Ecology and Evolutionary Biology. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under professional mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198D. Honors Research in Ecology and Evolutionary Biology. (4 each) Tutorial, 12 hours. Limited to in seminar setting with supervised individual research designed to broaden and deepen students’ knowledge of some phase of biology. Must be taken with Ecology and Evolutionary Biology Department faculty for at least two terms and for total of at least 8 units. Eight units may be applied toward departmental majors. Individual contract required. In Progral (198A) and letter (198B) grading. Students may elect to enroll in additional research through courses 198C and 198D (letter grading). Report on progress must be presented to undergraduate adviser each term 198 course is taken.

199. Directed Research in Ecology and Evolutionary Biology. (2 to 4) Tutorial, six to 12 hours. Preparation: submission of written proposal outlining study or research. Enforced corequisite: at least 12 days instruction in major field or field-related research. Proposal to be developed in consultation with instructor and submitted for approval to undergraduate adviser before day instruction begins in that term. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. At end of term culminating report describing progress of research or research and signed by student and instructor must be presented to undergraduate adviser. Only one 199 course may be applied toward departmental majors. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

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 microevolution, speciation, natural selection, analytical biogeography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

M200B. Ecology. (4) Lecture, two hours; discussion, two hours. Principles and current topics in ecology. Topics may include island biogeography, disturbance ecology, chemical ecology, and physiological ecology. S/U or letter grading.

M200C. Advanced Animal Behavior. (4) Lecture, two hours; discussion, two hours. Survey of major topics in field of behavioral ecology. Topics include introductions to variety of research pursuits in field and questions and debates about research. Advanced interdisciplinary primer that spars topics from mechanisms of behavior at molecular and cellular levels to consequences of behavior for Darwinian fitness and ecological and evolutionary processes. S/U or letter grading.

201. Introduction to R for Ecology and Evolutionary Biology. (1 Lecture, six hours; discussion, six hours. Designed for departmental PhD students. Offered as intensive two-day course at beginning of term. Introduction to R language. Topics include working at command line, writing scripts and functions, flow control, graphics, and conducting basic simulations in discrete and continuous models. S/U or letter grading.

202. Advanced Statistics in Ecology and Evolutionary Biology. (4) Lecture, two hours; laboratory, two hours. Enforced Required: 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, multivariate clustering, and network 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 output. All statistical analysis conducted in R. Concurrency: scheduled with course C172. S/U or letter grading.

203. Marine Botany and Physiology. (4) Lecture, two hours; discussion, one hour; laboratory, six hours; experiment period. Prerequisite: Graduate standing. Structure, reproduction, life histories, and biology of marine algae, with emphasis on physiological ecology and biochemistry. Techniques in culture and physiological, speciation and species concept, and biology of algae. Given off campus at marine science center. S/U or letter grading.

204. Advanced Biology of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental phyiology. Topics include discussion of appropriate aspects of chemical and physical oceanography and limnology; algal physiology; biochemistry; physiological ecology, and algae processes in ocean and freshwater habitats. S/U or letter grading.

205. Marine Invertebrate Biology. (4) Lecture, four hours; laboratory, eight hours. Functional morphology, life history, and systematics of major groups of invertebrates of all major and most minor taxa; emphasis on living animal and its habitat. Given off campus at marine science center. S/U or letter grading.

206. Advanced Ichthyology. (4) Lecture, three hours; laboratory, three hours. Prerequisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

208. Advanced Vertebrate Morphology. (4) Lecture, two hours; laboratory, eight hours. Prerequisite: course 110. Emphasis on fundamental approach to evolution of vertebrate locomotor, feeding, and circulatory systems. Laboratory includes comparative and experimental analyses of morphological adaptation. Independent project required. May be repeated once for credit. S/U or letter grading.

210. Behavior of Arthropods. (4) Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive, and social behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.

211. Marine Ornithology. (4) Lecture, two hours; laboratory, two hours; fieldwork, two hours. Prerequisite: course 111 or 112. Advanced study of modern avian biology. Emphasis on experimental approaches to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociality). S/U or letter grading.

217. Marine Ecology. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Structure, diversity, and energetics of marine communities; behavior, population dynamics, and biogeography of component species; associated oceanography and geology. Given off campus at marine science center. S/U or letter grading.

218. Oceanography. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Ecological and dynamics of pelagic and benthic associations; physicochemical properties of seawater and marine substrates and their biological significance; qualitative and quantitative methods of oceanography. Given off campus at marine science center. S/U or letter grading.

C219A. Mathematical and Computational Modeling in Ecology and Evolutionary Biology. (4) Lecture, four hours; discussion, one hour. Prerequisite: 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 applicable throughout life and physical sciences. Concurrently scheduled with course C119A. S/U or letter grading.

C219B. Modeling in Ecological Research. (4) Lecture, four hours; discussion, two hours. Recommended requisite: course C219A. Advanced techniques in mathematical and computational modeling of ecological dynamics and other population dynamic processes, 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. 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 problems. Designed for students who intend to be academic researchers and want to learn about conservation in way that can make research immediately relevant, and
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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.

M226. Global Health Measures for Biological Emergencies. (4) (Same as Epidemiology M226.) Lecture, four hours; laboratory, four hours. Prerequisites: course 158, Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introductory course in geology). Exploration of relationships between physical processes, such as tectonics and climate, that affect surface and impact biology of Earth. Study of evolution of universe, Earth, and life, with integration of history of science, including Darwinian evolution and plate tectonics reconstructions. Introduction of mathematical tools to understand geologic process of climate and ecology of Earth. Past climate change to examine expected future human-influenced climate. Consideration of mechanisms of development of life on Earth, and methods from geology, genetics, and geochemistry are integrated to reconstruct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM173. Letter grading.

C230. Comparative Biology and Macroevolution. (4) Lecture, three hours; laboratory, three hours. Prerequisite: course 14B (or 210B). Life Sciences 1, 2, 3, and 4, or 7A, 7B, 7C (or 7A and introductory course in geology). Exploration of relationships between physical processes, such as tectonics and climate, that affect surface and impact biology of Earth. Study of evolution of universe, Earth, and life, with integration of history of science, including Darwinian evolution and plate tectonics reconstructions. Introduction of mathematical tools to understand geologic process of climate and ecology of Earth. Past climate change to examine expected future human-influenced climate. Consideration of mechanisms of development of life on Earth, and methods from geology, genetics, and geochemistry are integrated to reconstruct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM173. Letter grading.

M231. Molecular Evolution. (4) (Same as Earth, Planetary, and Space Sciences M231.) Lecture, two hours; discussion, two hours. Series of advanced topics in molecular evolution, with special emphasis on molecular phylogenetics. Topics may include nature of genome, neutral evolution, molecular clocks, concerted evolution, molecular systematics, statistical tests, and phylogenetic algorithms. Themes may vary from year to year. May be repeated for credit. S/U or letter grading.

M232. Evolutionary Ecology. (4) (Formerly numbered 232.) (Same as Biometrics M232.) Lecture, two and one half hours. Prerequisite: course M200A or M200B, or equivalent. Concepts and topics include fundamental concepts of evolutionary ecology, including life history theory, quantitative genetics and phenotypic evolution, and advances made in field in last decade. May be repeated for credit. S/U or letter grading.

233. UCLA/La Kretz Workshop in 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. Conservation biology and genetics have long had inti miate relationship and constitute one key application of evolutionary analysis to real-world biological problems. Impacts of population genetics, phylogenetics, and phenogeography 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, troubleshooting, and analysis of large datasets for conservation-relevant problems. Active participation from members of several U.S. government agencies at forefront of endangered species protection and management, providing both relevant aspects of conservation genomics to managers. S/U grading.


C237. Communicating Science to Informal Audiences. (4) Lecture, three hours; discussion, one hour. Prerequisites: courses 158, 187. Science communication is essential skill for advancing scientific research and society. Students work collaboratively to communicate results of original research using formal (e.g., written paper and poster) and/or informal (e.g., video, brochure, digital media, etc.) forms of science communication. Students also create reflective communication piece (written, podcast) to assess how they are learned through process of research that could be shared with broad audience. Concurrently scheduled with course C179. Letter grading.

M238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M238.) Lecture, three hours. Interaction of ocean biogeochemical cycles with physical climate system. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time-scales from few million years to several years. Anthropogenic perturbation of global carbon cycle and climate. Response systems to past and future global changes. Use of isotope studies to study ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.

240. Physiology of Marine Animals. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory studies on cellular, tissue, organ, and animal physiology; regulatory biology; laboratory and computer techniques of classification, sampling, and manipulation of large datasets for comparative biology. Given off campus at marine science center. S/U or letter grading.

C242. Behavioral Ecology. (4) Lecture, three hours; discussion, two hours. Prerequisites: course 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Sciences 30B. Recommended: course 129. Evolutionary perspective of behavioral ecology, with extended consideration of ecological, evolutionary, and developmental genetics. Natural selection and coevolution, kin selection and diversity in group functioning and cooperation, social learning, game theory and alternative life histories, and human behavior. Concurrently scheduled with course C126. Letter grading.

C243. Animal Communication. (4) Lecture, three hours; discussion, one hour. Prerequisites: Mathematics 3C or 32A, and Physics 1C and 4BL, or 6C or 6CH. Physical properties of animal signals and physiological mechanisms underlying their generation and reception. Lecture, three hours; discussion, one hour. Prerequisite: course 162 or Molecular, Cell, and Developmental Biology C141. Open to undergraduates with consent of instructor. Described to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant genetics, growth and development, organ-elle structure, development and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.

244. Advanced Insect Physiology. (4) Lecture, two hours; laboratory, five hours. Detailed discussion of current problems in insect physiology, with advanced laboratory. S/U or letter grading.

C246. Conservation Genetics. (4) Lecture, three hours; discussion, one hour. Prerequisites: courses 150 or Life Sciences 170, Life Sciences 7A, 7B, 7C. Conservation genetics is the application of genetic principles and methods to population genetics, evolutionary biology, molecular ecology, and systematics to understand how to conserve and manage populations and species of natural organisms, and understand genetic processes underlying why some go extinct. Case studies of plants and animals cover range of topics including habitat loss, population size, and inbreeding depression; landscape change and genetic connectivity of populations; climate change and local adaptation; management of wild and natural populations; and invasive species. Concurrently scheduled with course C146. S/U or letter grading.

247. Advanced Plant Biology. (4) Lecture, three hours; discussion, two hours. Prerequisite: course 162 or Molecular, Cell, and Developmental Biology C141. Open to undergraduates with consent of instructor. Described to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant genetics, growth and development, organ-elle structure, development and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.


255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

259. Seminar: Herpetology. (2) Seminar, three hours. Seminar on current approaches to herpetology. Main theme varies from year to year in areas such as biogeography, epidemiology, behavior, environmental physiology. S/U or letter grading.

260. Seminar: Biological of Terrestrial Vertebrates. (2) Seminar, two hours. S/U or letter grading.

261. Molecular Ecology of Plant Populations. (2) Seminar, two hours. Prerequisite: course M200A. Integration of ecological and molecular genetics with concepts of evolutionary biology to understand 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.

263. Seminar: Population Genetics. (4 or 2) 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: Stomatol Function. (4) Seminar, four hours. Prerequisite: courses 150 or Life Sciences 170, Life Sciences 7A, 7B, 7C. Conservation genetics is the application of genetic principles and methods to population genetics, evolutionary biology, molecular ecology, and systematics to understand how to conserve and manage populations and species of natural organisms, and understand genetic processes underlying why some go extinct. Case studies of plants and animals cover range of topics including habitat loss, population size, and inbreeding depression; landscape change and genetic connectivity of populations; climate change and local adaptation; management of wild and natural populations; and invasive species. S/U or letter grading.

ECONOMICS
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Economics

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Jinyong Hahn, PhD, Chair
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Andrew G. Atkeson, PhD, Director,
Business Economics

Faculty Roster

Professors

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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 (Benjamin Graham
Endowed Professor of Value Investing)
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 (Dubchansky
Endowed Professor of Economics)
Jinyong Hahn, PhD
Gary D. Hansen, PhD
Hugo A. Hopenhayn, PhD
Oleg Itskhoki, PhD (Venu and Ana Kotamaru
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Zhigeng Liao, PhD

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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 Azariadis, PhD
Moshe Buchinsky, PhD
Harold Demsetz, PhD
Bryan C. Elickeon, PhD
Roger E. Farmer, PhD
Arnold C. Harberger, PhD
Benjamin Klein, PhD
Deepek K. Lai, PhD (James S. Coleman
Professor Emeritus of International
Development Studies)
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Axel S. Leijonhufvud, PhD
John J. McCall, PhD
Joseph M. Ostroy, PhD
John G. Riley, PhD
Finis R. Welch, PhD

Associate Professors

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Saki Bigio, PhD
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Davidson Endowed Term Professor of
Economics)
Michela Giocoli, PhD
Martin B. Hackmann, PhD
Jay Y. Lu, PhD
Sule Ozler, PhD

Assistant Professors

Alexander W. Bloedel, PhD
François Geeroif, PhD
Felipe M. Gonçalves, PhD
Daniel Haanwinkiel, PhD
Juliana Londoño-Vélez, PhD
Rodrigo R.A. Pinto, PhD
William F. Rafey, PhD
Michael Rubens, PhD
Tommas M. Sadzik, PhD
Yotam Shem-Tov, PhD
Shuyang Sheng, PhD
Bernardo S. Silveira, PhD

Lecturer

Edward P. McDevitt, PhD

Adjunct Associate Professor

Randall R. Rojas, PhD

Adjunct Assistant Professors

Kimberly S. Boswell, PhD
Patrick D. Convery, MBA, 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 bring a unique perspective to the study of economics, the relationship between education and health, outcomes, cartels and antitrust policy, the economic theories and their lessons for today’s economy, and the origins and persistence of the Great Depression. Their work covers diverse topics such as issues affecting the U.S. and the world. The department's work covers various topics such as theoretical background for those pursuing economics, the primary focus in their undergraduate education.

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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 are California residents. 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 economics. Emphasis is on economic principles applied to resolving interpersonal conflicts of interest and coordinating productive activity in a world of scarce resources. Because students must gain a thorough theoretical and technical competence before extensive study of the applied specializations in the discipline, the analytic core of the major in Economics is closely structured. Some courses are appropriate for non-majors, but the curriculum is most suitable for students who wish to make the study of economics the primary focus in their undergraduate education.

The undergraduate major provides students with analytical training in reference to socioeconomic phenomena and provides an excellent theoretical background for those pursuing graduate education in economics, law, management, public administration, journalism, social welfare, architecture and urban planning, and education.

Graduate Study
The graduate program is designed primarily for students pursuing the PhD degree. The department is awarded to those students who have achieved the level of study and training required for a professional economist. The degree recognizes students' ability to make scholarly contributions in their fields of specialization and to undertake advanced research in those areas.

Undergraduate Majors
Economics BA
Learning Outcomes
The Economics major has the following learning outcomes:

- 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 and 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
- Location and use of primary data sources such as surveys
- Use of knowledge gained to understand and evaluate current economic events and new economic ideas

Entry to the Major
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.

Pre-major
While students are completing the lower-division preparation for the major courses, they may be classified as Economics pre-majors.

Transfer Students
Transfer applicants to the Economics major with 90 or more units must complete the following introductory courses prior to admission to UCLA:

- One microeconomics course
- One macroeconomics course
- Two calculus courses from the mathematics/physical sciences sequence, and one English critical reading and writing course

Transfer students must successfully complete all remaining pre-major 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.

Requirements
Preparation for the Major
Required: Economics 1, 2, 11, 41; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E.

The Major
Required: Twelve upper-division economics courses as follows: Economics 101, 102, 103, 103L, 104, 104L, and six Economics Department upper-division elective courses. No more than two of the elective courses may also be selected from Management 120A, 120B, 122, 127A, 130A, 180 (real estate finance only).

Honors Program
Students must complete Economics 198A and 198B in which a thesis is written.

Policies
Preparation for the Major
Each course must be taken for a letter grade. A 2.0 (C) grade is required in each pre-major 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 of any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.
The Major
Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major. Laboratory courses are required for all upper-division economics courses when they are offered and listed as mandatory co-requisites.
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 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 for the highest 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

Entry to the Major
Admission
Applications for admission by current UCLA students are handled exclusively by the Department of Economics. To apply, students must have completed at least 72 quarter units (but no more than 135 quarter units), one 12-unit 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 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.
Pre-major
While students are completing the preparation courses for the major, they may be classified as Business Economics pre-majors.
Transfer students who wish to enter UCLA as Business Economics pre-majors must meet the admission screening requirements. For information, contact Undergraduate Admission.
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.

Requirements
Preparation for the Major
Required: Economics 1, 2, 11, 41, 101; one Writing II course; Management 1A, 1B; Mathematics 31A, and 31B or 31E.
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.
Honors Program
Students must complete Economics 198A and 198B in which a thesis is written.

Policies
Preparation for the Major
Each course must be taken for a letter grade.
Repetition of more than one preparation course or of any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.
The Major
Each upper-division major course must be taken for a letter grade. Transfer credit for any of the major courses is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major. Laboratory courses are required for all upper-division economics courses when they are offered and listed as mandatory co-requisites.
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 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 for the highest 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.
Graduate Majors

Economics MA, CPhl, PhD

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

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 requisite: course 1. Not open to students with credit for former course 101. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on aggregate 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, power of compound interest and 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 or letter 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 exchange rates, central banks, financial statements, value creation, interpreting financial ratios, power of compound interest, financial crises, and role private equity, venture capital, initial public offers, 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 or letter grading.

5. Economics for everyone. (5) Lecture; three hours; discussion, one hour. Introduction to models and tools used by economists in practical real-world context. Study of important topical issues such as 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 entrance requirements for any Economics Department major. P/NP 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 programs 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.

10R. Economics Toolkit: Introduction to R for Economists. (4) Lecture; three hours. Hands-on introduction to data analysis in economics using R. Covers essential mathematical tools that introduces mechanics of R. No prior knowledge of R, computer programming, statistics, or economics is required. P/NP grading.

11. Microeconomic Theory. (4) Lecture; three hours; discussion, one hour. Enforced requisite: courses 1 and 2. Mathematics 31A, 31B, with grades of C or better. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

12. Personal Finance. (4) Lecture; three hours; discussion, one hour. Introduction to personal finance. No previous financial, economic, or mathematics background required. Open to nonmajors. Covers wide array of topics at introductory level that are of interest to students on practical level and more broadly for students seeking to deepen their understanding of key features of financial system, financial institutions, and various aspects of personal finance encountered by typical household over their life cycle. Topics covered include interest rates, time value of money, types of loans most relevant to typical household, credit and debit cards, savings and investment, stocks and bonds, risk and diversification, personal income taxes, varieties of insurance, retirement and savings plans, macroeconomic concepts, social security, Medicare, and aspects of business ownership. 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 a small class 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. Not open to students with credit for former Statistics 11. Introduction to theory and practice of mathematical statistics with emphasis on its use in economics. Introduction of basic statistical concepts such as random variables, probability distributions, estimation, confidence intervals, and hypothesis testing. 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 degree for students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. 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. Microeconomic Theory. (4) Lecture; three hours; discussion, one hour. Enforced requisite: course 11. Theory of factor pricing and income distribution, general equilibrium, implications of pricing process for optimum allocation of resources, game theory, and interest and capital. P/NP or letter grading.


103. Introduction to Econometrics. (4) Lecture; three hours; discussion, one hour. Enforced requisites: courses 11, and 41 or Mathematics 170A and 170B or 170E and 170S or Statistics 100A and 100B. Enforced corequisite: 103L. Introduction to theory and practice of univariate regression analysis with emphasis on its use in economics. Introduction to method of least squares, Gauss-Markov theorem, confidence intervals and hypothesis tests in univariate regression context, and standard errors in case of heteroscedasticity and serial correlation. Emphasis on applications with real data and computer software (R programming language) to implement discussed methods. P/NP or letter grading.

103L. Econometrics Laboratory. (1) Lecture; one hour; laboratory; one hour. Enforced requisites: courses 11, and 41 or Mathematics 170A and 170B or 170E and 170S or Statistics 100A and 100B. Enforced corequisite: 103L. Econometric analysis of case-based studies. Hands-on data collection and problem solving. Use of econometric software. P/NP or letter grading.

104. Data Science for Economists. (4) Lecture; three hours; laboratory; one hour. Enforced requisites: courses 11, 103. Enforced corequisite: course 104L. In-depth discussion of multivariate regression. Introduction to estimation of multivariate regression, and confidence intervals and hypothesis tests in context of multivariate regression. Discussion of instrumental variables and binary choice models. Emphasis on hands-on experience on data analytics and real data applications. P/NP or letter grading.

106A. Economics in Practice Laboratory. (1) Seminar, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106AL. Students in groups of four, address three small problems and one large and more complex problem. Students explore potential solutions to problems in their groups, with small-group discussions to student presentations of results in class. Written feedback and feedback on students on student analysis and presentations. Final written and oral presentations required. P/NP or letter grading.

106B. Data Science for Economists. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106B. Course-based analysis re- quiring students to apply theory 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.

106F. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: course 102. Enforced corequisite: course 106A. Case-based analysis requiring students to apply material from course 106A to real-world problems regarding issues such as economic theory and empirical methods. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106P. Pricing and Strategy. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106P. Topics include application of basic 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, deterrence entry) and more practical issues (funding, business plans, patents). Letter grading.


106V. Investments. (4) Lecture, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106V. Case-based analysis requiring students to apply theory from course 106V to real-world problems regarding issues such as bidding in online auctions, two-sided markets, matching markets, 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.

106T. Economics of Technology and E-Commerce. (4) Lecture, three hours. Enforced requisites: courses 11, 101. Enforced corequisite: course 106T. Use of rigorous economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Topics include bidding in online auctions, two-sided markets, matching, and reputation mechanisms. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106P. Pricing and Strategy. (4) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106P. Topics include application of basic 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, deterrence entry) and more practical issues (funding, business plans, patents). Letter grading.

106F. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106F. Course-based analysis re- quiring students to apply theory 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.

106P. Pricing and Strategy. (4) Lecture, three hours. Enforced requisites: course 102. Enforced corequisite: course 106P. Topics include application of basic 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, deterrence entry) and more practical issues (funding, business plans, patents). Letter grading.

106F. Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106F. Course-based analysis re- quiring students to apply theory 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.
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 111. 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, institutions, and poverty and policy, precepts on 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 both methodologies used to answer questions in development economics, like natural experiments and randomized control trials, as well as research on development and underlying education, growth, culture, and gender. Reading intensive, seminar-style course. Students are expected to read academic articles in economics and actively participate in class discussions. Students also learn how to use data to evaluate policies. P/NP or letter grading.

113. Globalization and Gender. (4) Lecture, three hours. Requisites: course 11. Examination of gender dimensions of economic development and globalization from perspective of feminist economics. This perspective implies foregrounding labor, broadly defined to include paid and unpaid work; examining gender differences in paid work; and analyzing outcomes; and how these are affected by macroeconomic policies and how gender inequalities are relevant for societal well-being. Since early 1980s economic globalization has been achieved on basis of common set of macroeconomic policies pursued in industrial and developing countries alike. These policies frame both gender-differentiated impacts of policy and initiatives that are implemented to reduce inequalities between men and women. Examination of impact of these policies on gender inequalities in developing countries. P/NP or letter grading.


121L. International Trade Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 121. Case-based analysis requiring students to apply material from course 121 to real-world problems involving international trade: bases, direction, terms, volume, and gains of trade; effects of tariffs, quantitative restrictions, and international integration; effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

122. International Finance. (4) Lecture, three hours; discussion, one hour. Requisite: course 102. Enforced corequisite: course 122. Case-based analysis requiring students to apply material from course 122 to real-world problems involving international trade: exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary standards, capital movements, exchange controls, and international monetary organization. P/NP or letter grading.

123L.International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 122. Case-based analysis requiring students to apply material from course 122 to real-world problems involving international finance. Topics and analysis include balance of payments, exchange rates under various monetary arrangements, capital flows, exchange controls, and international monetary organization. Hands-on data collection and presentation of student analyses in writing. P/NP or letter grading.

123C. Forecasting Exchange Rates and Constructing Currency Portfolios. (4) Formerly numbered M123L. Lecture, three hours; discussion, one hour. Requisite: course 123L or consent of instructor. Enforced corequisite: course 123L. Study of main theoretical models of exchange rates and how to design computer codes to make real-time exchange rate forecasts by applying such models to real-world data. Different statistical tests to evaluate accuracy of forecasts and to assess risk-reward trade-offs of currency portfolios. Students study research and presentation skills. Discussion of books and newspaper articles about financial markets and impact of economic news on exchange rates. Students expected to be familiar with use of spreadsheets, such as Excel. Coding basics is highly recommended. P/NP or letter grading.

123L. Forecasting Exchange Rates and Constructing Currency Portfolios Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 102, 103, 103L, or consent of instructor. Enforced corequisite: course 123L. Hands-on approach in which students write computer codes associated with concepts learned in class and test these codes to real-world data in order to generate exchange rate forecasts and evaluate prediction accuracy of their forecasting models. Students use these forecasts to construct portfolios of currencies and assess reward-risk trade-offs of such portfolios. To generate and evaluate forecasts, students use TradeStation software, which can be accessed in Social Sciences Computing laboratories. P/NP or letter grading.

C126A-C126B-C126C. Seminars: International Economics. (4–4–4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in international economics. Students will focus on advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new paper or paper presented, discussed, and critiqued by visiting experts. Concurrently scheduled with courses C285A-C285B-C285C. P/NP or letter grading.


130L. Public Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 130L. Not open to students with credit for former course 130. Focus on public policies other than those of personal consumption. Emphasis on designing incentives to protect environment. Highlights important role of using empirical data to test hypotheses about pollution's causes and consequences. P/NP or letter grading.


133L. Intergenerational Poverty in America Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisite: course 11, 101, 103. Enforced corequisite: course 133. Case-based analysis requiring students to apply theory and analysis from course 133 to real-world problems regarding intergenerational poverty in America. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

133. Intergenerational Poverty in America. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 133L. Examination of how poverty influences child development and, ultimately, their income and well-being in adulthood. Overview of theories of generational mobility in America, looking at historical trends and placing U.S. in international context. To understand why poverty is persistent across generations in U.S., study economic, social, and cultural factors in childhood. Consideration of existing research exploring how number of factors explain intergenerational persistence of poverty, including parental time, poverty incidence, and childhood health; stress, and preschool/education systems. Discussion of evidence on whether various public policies can improve mobility. P/NP or letter grading.

133L. Intergenerational Poverty in America Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisite: courses 11, 101, 103. Enforced corequisite: course 133L. Case-based analysis requiring students to apply theory and analysis from course 133 to real-world problems regarding intergenerational poverty in America. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

134. Environmental Economics. (4) Lecture, three hours. Requisites: course 41 or Statistics 12 or 13, and course 101. Introduction to major ideas in natural resource and environmental economics. Emphasis on designing incentives to protect environment. Highlights important role of using empirical data to test hypotheses about pollution's causes and consequences. P/NP or letter grading.


137. Introduction to Urban and Regional Economies. (4) Lecture, three hours. Requisite: course 11. Survey of broad range of policy and theoretical issues that are raised when economic analysis is applied in urban setting. Topics include urbanization and urban growth, housing markets, location decisions of households and firms, transportation, urban labor markets, and political economy. P/NP or letter grading.

140. Computational Methods for Economists. (4) Lecture, three hours; discussion, one hour. Requisites: courses 101, 102, 103, Mathematics 31A, 31B, 32A, 32B, and 32C. Enforced corequisite: course 140L. Introduction to variety of computational methods used in economics. Use of Python and numerical techniques to solve models in macroeconomics and finance, microeconomics, and econometrics. Students should be familiar with scientific programming language such as R or MATLAB but are not required to know Python. P/NP or letter grading.
140L. Computational Methods for Economists Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 101, 102, 103, Mathematics 31A, 31B, 32A, 33A, 33B. Enforced corequisite: course 140. Problem-solving and project-based laboratory to apply computational methods from course 140 to solve models in macroeconomics and finance, microeconomics, and econometrics. Students should be familiar with scientific programming languages such as R or MATLAB but are not required to know Python. P/NP or letter grading.

141. Topics in Microeconomics: Mathematical Finance. (3-4) Lecture, three hours; computer laboratory, one hour. Mathematics 32A, 32B, Statistics 100A or Mathematics 170A. Financial economics of financial markets, competitive equilibrium with time and uncertainty, one period security market model, market completeness. P/NP or letter grading.

142. Topics in Microeconomics: Probabilistic Microeconomics. (4) Lecture, three hours. Requisite: course 101. Combination of basic probability introduced in Statistics 11 with microeconomic models presented in courses 11 and 101 in order to explain phenomena such as insurance, job search, and stock market behavior. Optimal production and consumption under uncertainty. Review of probability and introduction to the role of risk and risk aversion. P/NP or letter grading.

143. Advanced Econometrics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 103. Not open for credit to students with credit for course 147B. Heteroskedasticity and autocorrelation; limited dependent variable, panel data, time-series. P/NP or letter grading.

144. Economic Forecasting. (4) Lecture, three hours. Preparation: familiarity with data analysis software (e.g., R, Excel, MATLAB, Stata) and/or programming experience. Enforced requisites: courses 101, 103/103L. Survey of theory and application of time-series methods to forecasting in economics, business, and government. Time-series modeling and forecasting trend, seasonality, and cycles. Discussion of stochastic processes, volatility measure, and evaluation of forecasting techniques. Hands-on approach to real-world data analysis methods widely used by economists and other professionals. P/NP or letter grading.


C146A-C146B-C146C. Seminars: Asset Pricing. (3–4–4) Seminar, three hours. Requisites: 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 critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Counted toward scheduled courses C266A-C266B-C266C. P/NP or letter grading.


150L. Labor Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 150. Case-based analysis and presentation of student analyses from course 150 to real-world problems involving labor economics. Topics include labor supply decisions, household production decisions, life-cycle aspects of labor markets, 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 analyses both orally and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4) Lecture, three hours. Requisites: courses 101, 105. Selected topics in labor theory; income distribution; business cycles and unemployment; investments in human capital and life cycles; migration; human fertility; marriage and divorce, etc. P/NP or letter grading.

152. Women, Men, and Economics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 103. Corequisite: course 152L. Introduction to using tools of economics to understand gender-related issues. Review of economic models of household decision making, and labor supply, and how they help interpret long-term trends in marriage and divorce, fertility, and women’s labor-force participation. Review of economic models of wage determination, and policy remedies for earnings differentials between women and men. Examination of new research in economics on gender-related topics. P/NP or letter grading.

C156A-C156B-C156C. Seminars: Labor Economics. (4–4–4) Seminar, three hours. Requisites: courses 11, 101, 103. Enforced 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.


161. Monetary Theory. (4) Lecture, three hours. Requisites: courses 101, 160. Nature of money and monetary exchange; levels and structure of interest rates; role of central banks; government influence over monetary policy; role of money in wage formation and growth rate; monetary transmission; voluntary and involuntary change in money supply; P/NP or letter grading.


164L. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Enforced corequisite: course 164L. 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 study requiring students to apply theory and historical data from course 165 to simulate 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.

C166A-C166B-C166C. Seminars: Monetary Economics/Macroeconomics. (4–4–4) Seminar, three hours. Requisite: course 102. Limited to seniors. Overview of most current developments in monetary eco-
167. Victims and Villains: Panics and Bubbles. (4) Lecture, three hours. Requisites: course 101, Management 1A, 1B (1A, 1B may be taken concurrently). Focus on phenomena of panics, bubbles, and manias in financial markets. Introduction to analytical and descriptive techniques underlying causes, private and public policy responses, similarities, and contemporary issues in today's financial landscape. Focus on study of financial meltdowns of 2008 with comparative treatment of financial and banking panics, with discussion of underlying housing and stock market bubbles. Also covers five other financial crises: panic of 1907, Great Depression, Japanese real estate and stock market bubbles of 1980s, American banking crises of 1980s, and Asian Contagion of late 1990s. Highlights various components of financial crises with case and discussion on exchange rates, submissions, real asset bubbles, and real estate bubbles. Topics include differences between investment and speculation, how to search for inefficiencies in market pricing practices, antitrust and other topics. Hands-on data collection and problem solving of student analyses in writing. P/NP or letter grading.

168. Introduction to Principles of Value Investing. (4) Lecture, three hours. Requisites: course 101, Management 1A, 1B. Enrollments by concurrent registration. Introduction to fundamental principles of value investing. Discussion of fundamental themes related to value investing, and demonstration of how these ideas compare favorably with other investment approaches. Topics include differences between investment and speculation, how to search for inefficiencies in market, and importance of incorporating margin of safety in valuation and selection of stocks. Students will be introduced to cash flow analysis, discounted cash flow valuation, and fundamentals of value investing to identify potential investment opportunities. Lecture, three hours. Requisites: courses 103, 103L. Focus on value investing principles, including the identification of potential investment opportunities, and the application of value investing techniques to real-world situations. Full-scale immersion into 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 MBA student volunteers as advisers on how to construct case studies to resolve issues that arise with staff of assigned social enterprise. 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 economic theory and techniques related to sports industry. Topics include history of labor relations in professional sports, health and analysis of player salaries in professional sports, market for professional sports franchises, sports broadcasting rights, league expansion and relocation decisions, understanding of role of economic impact studies (cost-benefit analysis) and public/private partnerships in facilities financing, relationship between academics and athletics in collegiate sports, racial discrimination in sports, exploration of behavioral issues such as strategic effect, measuring return on investment from sports sponsorships, and calculation of economic damages in legal cases involving athletes. P/NP or letter grading.

175. Development of Economic Institutions in Western Europe. (4) Lecture, three hours. Enforced requisites: courses 11, 103, Corequisite: course 181L. Application of economic theory and quantitative reasoning to study economic history of Western Europe from 18th to 20th century. Topics include Malthusian theory, Industrial Revolution, demographic transition, formation and persistence of institutions and organizations, World Wars, and development of Europe during 1950s and 1960s. Full-scale immersion into 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 MBA student volunteers as advisers on how to construct case studies to resolve issues that arise with staff of assigned social enterprise. In Progress (173AX) and P/NP or letter grading.
198. Honors Research in Economics I. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to juniors/seniors. Internship to be supervised by business or entity for which student is doing internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major requirements. Only 8 units from courses 195A and 195B may be applied toward undergraduate degree. Individual contract with supervising faculty member required. P/NP grading.

198A. Honors Research in Economics II. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to students in College Honors Program. Department. Students complete honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Economics II. (4) Tutorial, three hours. Requisite: course 198A. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project may be repeated twice but may be applied only once toward major requirements. Individual contract required. P/NP or letter grading.

199A. Directed Research in Economics. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project may be repeated twice but may be applied only once toward major requirements. Individual contract required. P/NP or letter grading.

199B. Directed Research in Economics/International Area Studies. (4) Tutorial, three hours. Students prepare research papers under guidance of faculty mentor on economy of country or region of specialization. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

Foundations of Economics


200B. Mathematical Methods in Economics II. (4) Lecture, three hours. Requisite: course 200A. May be taken prior to or concurrent with course 201B. 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.


202A. Macroeconomics: Dynamics and Growth Theory. (4) Lecture, three hours. Essential techniques and concepts from dynamical mathematics and neo-classical growth theory. Linear and nonlinear dynamical systems. Dynamic programming and control theory. Determinacy of equilibrium. Descriptive, optimal, and overlapping genera-
tions models of accumulation, stochastic growth theory. Increasing returns to scale and the implications for economic growth. S/U or letter grading.

macroeconomic industry, including rates of innovation, drug regulation, and the economic impact of pharmaceuticals. Letter grading.

204R. Applications of Economic Theory. (4) Lecture, three hours. Preparation: completion of first-year microeconomics and graduate econometrics courses. In past decade economic research has indicated that a large amount about how society works. Increased understanding has come about through application of distinctly economic methods of research—explicit mathematical models and eclectic statistical techniques—to topics such as healthcare, crime, education, and immigration. Taken together this work has led to increased ability of inferences to be drawn. To measure it, how inequality has increased in U.S., how America differs from other rich countries and, most important, what causes inequality. Study of this work, with focused discussions of microeconomic and macroeconomic education and health—which are two areas in which knowledge is accumulating most rapidly. S/U grading.

205. Economic Modeling. (4) Lecture, three hours. Development of modeling skills by considering sequence of economic issues (e.g., peak load pricing, monopoly, capital asset pricing, Pareto efficiency). Emphasis on multivariate constrained optimization. S/U or letter grading.

206. Law and Economics Workshop, (2 or 3) Seminar, two hours. Corequisite: course 210A or Management 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series bringing together outside speakers with scholars and students to discuss topics relevant to 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 Law 648 and Management 294. S/U or letter grading.

207. History of Economic Thought. (4) Lecture, three hours. Topics from classical economics, including work of Smith, Ricardo, and Mill, and developments from 1870 to present. Emphasis on the figures of marginalist revolution, socialist controversy, and history of welfare economics. S/U or letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include population size, marital status, birth and death rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

209A-209B-209C. PhD Research Seminar. (4–4–4) Seminar, three hours. Designed to help PhD students transition from standard learning (attending lecture, taking examinations) into creating independent research. Students are supported in developing their dissertation and professional skills in all aspects of process of creating their own research, including writing and presentation. Covered topics include finding research ideas, writing introductions, building narratives, writing models, presenting empirical analysis, writing referee reports, responding to referees, presentation of research posters, etc. For each topic, students study canonical examples and work on their own papers. Faculty provide feedback and build supportive environment in which students can learn and experiment. S/U grading.

Economic Theory

211A. Contract Theory. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 210C. Study of trading relationships between small number of agents. Coverage of many tools and techniques used in models of moral hazard, adverse selection, and incomplete contracting, starting with static models of moral hazard and mechanism design and development of their dynamic counterparts. Consideration of environments where agents cannot use formal contracts, studying relational contracts and trading relationships with no contracts, Analysis of wide variety of applications from industrial organization, corporate finance, personnel economics, and public economics. S/U or letter grading.


211C. Game Theory and Economic Applications. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 210C. Intended for students who are interested in doing research in microeconomic theory. Topics of interest to students who want to acquire good theory background to do applied work. Coverage of combination of standard results in field and topics of current research, including notions of equilibrium in static and dynamic games, repeated games, games of incomplete information, and experiments. S/U or letter grading.

212A. Topics in Advanced Theory: Search Theory. (4) Lecture, three hours. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and oligopoly. Use of contract theory to study auction design and imperfectly competitive markets. May be repeated for credit. S/U or letter grading.

212B. Topics in Advanced Theory: Applied Game Theory. (4) Lecture, three hours. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and oligopoly. Use of contract theory to study auction design and imperfectly competitive markets. May be repeated for credit. S/U or letter grading.

213A-213B. General Equilibrium and Game Theory. (4–4) Lecture, three hours. Requisite: course 210C. Selected advanced theoretical topics of current interest and introduction to modern mathematical economics, including general equilibrium theory and game theory. S/U or letter grading.

214A-214Z. Topics in Mathematical Economics. (4 each) Lecture, three hours. Preparation: course 213A. Current research in mathematical economics. Content varies. Ordinarily only two courses in this sequence given every year. May be repeated for credit. S/U or letter grading.

214A. Topics in Mathematical Economics: General Equilibrium Theory. (4) Lecture, three hours. Requisite: course 210C. General convergence theorem, cooperative and noncooperative approach to equilibrium theory. The fundamentals of the core: surplus condition, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.

M215S. Topics in Advanced Theory (4) (Same as Political Science M208B.) Lecture, three hours. Preparation: 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.


Also see Management 203A (decision theory)

Monetary Economics


221D. Monetary Economics IV (4) Lecture, three hours. Requisites: courses 202A, 202B, 202C. Emphasis on applied macroeconomics, with topic change each year. Students select one particular data set to study. Each week class studies article from recent work in macroeconomics or applied econometrics that teaches one technique or suggests one theoret- ical restriction on data. Subgroups of students report back to class using technique on their selected data set. S/U grading.

222A-222Z. Topics in Monetary Economics. (4 each) Lecture, three hours. Current research in monetary economics. Content varies. May be repeated for credit. S/U or letter grading.

C226A-C226B-C226C. Seminars: Monetary Economics/Macroeconomics. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in monetary economics and macroeconomics. Required for advanced undergraduate and graduate students. Intro- duction to graduate-level research in this field. Diff- erent topic each week, with presentation and discus- sion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C166A-C166B-C166C, S/U grading.


229A-229B-229C. Workshops: Monetary Economics. (4–4–4) Lecture, three hours. Workshops for pre- dissertation and dissertation writers. Research in progress presented, discussed, and criticized by vis- iting experts, UCLA faculty members, advanced grad- uate students. Research paper required. S/U grading. Also see Management 239A, 239B, 239C (PhD se- quence in finance), 239D (advanced topics in finance), 239X, 239Y, 239Z (finance workshops)

Econometrics

231A. Advanced Econometrics I (4) Lecture, three hours. Econometric methods for microeconometric models. Topics include identification, nonparametric estimation, limited dependent variable models, dura- tion, 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 games, social 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 from year to year. Current topics include empirical process methods with applications to quantile regression and general M-estimation, estimation and inference methods for high-dimensional models, including LASSO and Dantzig Selector techniques, and bootstrap. May be repeated for credit. S/U or letter grading.

M232A. Topics in Econometrics: Bayesian Econometrics. (4) [Same as Political Science M208E] Lecture, three hours. Requisites: courses 231A, 231B. Subjective probability, introduction to decision theory, Bayesian econometrics, sensitivity analysis, simplification of models, criticism. May be repeated for credit. S/U or letter grading.


Economic History


C246A-C246B-C246C. Seminars: Economic History. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C186A-C186B-C186C. S/U grading.


Public Finance


251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Requisite: course 251A. Presentation of those aspects of applied capital theory that are relevant in decisions concerning investment projects in first part of course. Differences between social and private benefits and costs (shadow prices) for foreign exchange, capital, and labor, with applications to public investment decisions, in second part of course. S/U or letter grading.


253A-253Z. Topics in Public Finance. (4–4–4) Lecture, three hours. Content varies. Topics include Social Security taxes and programs, unemployment insurance, public provision of medical care, theory of public goods, and theory of public choice. May be repeated for credit. S/U or letter grading.

254A-254B-254C. Workshops: Public Economics. (4–4–4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress discussed by graduate students, UCLA faculty members, visiting experts. S/U grading.

Applied Microeconomics


262A. Topics in Labor Economics. (4) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

262D. Topics in Labor Economics: Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important key topics in microeconomics of development, such as health, education, risk coping, savings, credit, and household economics. Discussion of empirical methods. S/U or letter grading.

262G. Topics in Labor Economics: Public Sector Microeconomics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of topics related to tax incidence, expenditure, taxation of education, income taxation and transfer programs, with emphasis on impacts of such programs on labor supply and savings, social security, unemployment insurance, and other individual decisions. S/U or letter grading.

262P. Topics in Labor Economics. (4) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

263. Topics in Urban Economics. (4) Lecture, three hours. Current research in urban and regional economics. Content varies. Serves as forum for presentation of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.


C266A-C266B-C266C. Seminars: Labor Economics. (4–4–4) Seminar, three hours. Designed for predissertation 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 critiqued by visiting experts, UCLA faculty members, and graduate students. Concurrently scheduled with courses C156A-C156B-C156C. S/U (C266B) and S/U or letter (C266A, C266C) grading.

268A-268B-268C. Proseminars: Labor and Population. (4–4–4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers working on empirical issues in areas of labor and population. Broadly defined topics. Presentation of work-in-progress 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.


Industrial Organization


Economics / 401

272A-272Z. Topics in Industrial Organization. (4 each) Lecture, three hours. Current research in industrial organization. Content varies. May be repeated for credit. S/U or letter grading.

273A. Public Utility Regulation. (4) Lecture, three hours. Theory, practice, and consequences of regulation in electric power, gas, water, telecommunications, broadcasting, and other regulated industries; experiences of unregulated monopoly and public enterprises by way of contrast. S/U or letter grading.

C276A-C276B-C276C. Seminars: Industrial Organization. (4–4–4) Seminar, three hours. Designed for presiddertation and dissertation writers. Overview of most current developments in industrial organization for advanced graduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C126A-C126B-C126C. S/U grading.

Development Economics


286B. Cost-Benefit Analysis of Development Projects. (4) Lecture, three hours. Requisite: course 286A. Methodology for evaluating investment projects, with special attention to types of issues that arise in developing countries. Discussion of social versus private evaluation criteria; applications to highway, electricity, and irrigation projects. S/U or letter grading.


287B. Topics in Development Economics: Economic Development in East Asia. (4) Lecture, three hours. Recent economic history of East Asia, focusing on problems of growth, political development, and regulation. Students expected to develop a research project in an area of interest. May be repeated for credit. S/U or letter grading.

287C. Topics in Development Economics: Economic Development. (4) Lecture, three hours. Designed for graduate students. Topics in monetary and exchange rate policy in developing countries. Students expected to develop a research project. May be repeated for credit. S/U or letter grading.

287D. Topics in Development Economics. (4) Lecture, three hours. Current research in development economics. Content varies. Courses in this sequence not ordinarily given every year. May be repeated for credit. S/U or letter grading.


International Economics


282A-282Z. Topics in International Economics. (4 each) Lecture, three hours. Current research in international economics. Content varies. May be repeated for credit. S/U or letter grading.

284. Soviet Economic Theory and Organization. (4) Lecture, three hours. Overall strategy of planning used by USSR. planners and specific planning methods, interpreted broadly to cover not only instructions and objectives, but also institutional arrangements, intended and unintended outcomes of methods. S/U or letter grading.


Teaching Practicum

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel. 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.

Master of Quantitative Economics


401B. Applied Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Focus on important theoretical topics and research in welfare economics and game theory. Emphasis on techniques used in 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.


404B. Writing and Presentation Skills for Economists II. (4) Seminar, three hours. Designed for dissertation and writing experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C286A-C286B-C286C. Letter grading.
404B. Writing and Presentation Skills for Economists II. (4) Seminar, three hours. Limited to Master of Applied Economics students. Builds on skills learned in course 404A. Writing component to focus on summarizing, critiquing, and report writing. Process writing used and self-editing skills stressed. Presentations include summary/critique, opinion piece, and final group presentation that includes proposals. Grammar incorporated as needed, especially in regard to writing. 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.


415. Evidenced-Based Policy Analysis in Labor, Public, and Personal Finance. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to key policy questions in labor, public, and health economics, including health care, education, unemployment, training programs, and welfare. Economic principles at heart of these topics and main approaches to scientifically evaluate policies that affect them, including data, current case evidence, 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 economic principles that govern incentives and trading within firms, as well as competition between them. Study of theoretical models and microeconomic phenomena such as uncertain labor, and consumer markets. Consideration of whether we can design policies that improve market outcomes. Role of models in economics, and how to use them. 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 focus on current issues. Neo-classical trade models, analysis of firms and heterogeneous producers, and economic geography topics. Case studies focus on understanding determinants of trade patterns and on measurement of aggregative and distributional effects of international trade. Discussion of recent research on effects of NAFTA and Brexit, effect of trade on inequality in developing countries, and factor price determination. Consideration of 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.

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 complex datasets. Information theory, computational analysis, and behavioral economics with specific emphasis on data science in economics. Letter grading.

424. Income Inequality. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of rise of earning inequality (with emphasis on U.S.), focusing on learning how to use models and data to quantify impact of forces on inequality. Overview of broad empirical trends, with emphasis on understanding how to document these facts ourselves. Consideration of three classes of potential explanations for these patterns: institutional, technological, and behavioral (including issues of income and wealth inequality). Students conduct research focused on a specific aspect of income inequality. Letter grading.

425. Machine Learning for Economists. (4) (Formerly numbered 425.) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Covers set of fundamental machine learning algorithms, models, and theories, and introduces advanced engineering practices for implementing data-intensive intelligent systems. Topics include both supervised methods (e.g., support vector machine, neural network, etc.) and unsupervised methods (e.g., clustering, dimensionality reduction, etc.), and their applications in classification, regression, data analysis, and visualization. Letter grading.

426. Knowledge Discovery and Data Mining. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to algorithms and practical and theoretical techniques in field of data mining and knowledge discovery. Topics include data processing, association rules, supervised learning, clustering, and their applications in social network analysis, sentiment mining, and opinion analysis. Focus on making sense of large-scale or web-scale datasets, 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 computer science, programming skills, sufficient mathematical background in probability, statistics, and matrix analysis. Foundation course with primary application to data analytics. Intended to be accessible to students from a variety of backgrounds such as economics or mathematics, and to students from less technical backgrounds. Covers some fundamental topics in machine learning such as Bayesian learning, optimization, deep learning, and various classification, regression, clustering techniques, and other advanced topics. Real-world data-intensive problems. Letter grading.

428. Health Care Analytics: Methods and Applications. (4) Seminar, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to basic concepts of health economics. Development of skills in economic modeling and real-world data analysis. Business cases evaluating pros and cons of different approaches to improving health care markets. Letter grading.

429. Professional Development for Emerging Economists I. (1 to 2) Seminar, two hours. Limited to Master of Applied Economics students. Designed to help students develop professional skills essential for success in professional business settings. Aids students in developing their careers by taking courses into language and format that is accessible to industry/non-academic settings. Students conduct large literature research, explore industry trends, and develop targeted plan to achieve professional success. Exploration of skills identification, goal setting, researching employment market, and resume writing. Letter grading.

430. Professional Development for Emerging Economists II. (1 to 2) Seminar, two hours. Enforced requisite: course 429A. Limited to Master of Applied Economics students. Designed to help students develop professional skills essential for success in professional business settings. Aids students in translating topics covered in other courses into language and format that is accessible to industry/non-academic settings. Students practice presenting for variety of professional audiences. Exploration of presentation skills, personal branding, salary negotiation, and interviewing techniques. Letter grading.


432. Introduction to Econometrics, Cross-Sectional and Panel Data, and Time Series. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to econometrics, cross-sectional and panel data, and time series methods used in economics, business, and gov-
432. Financial Engineering with Data Science. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Data science provides many useful tools for modeling financial data and testing hypotheses on how markets work, and prices are formed. Study of these important tools. Focus on technical models and methods to understand financial market dynamics. Topics include returns of financial assets, statistical tests on financial market efficiency, time series models, varying expected return models, heteroscedastic volatility models, optimal portfolio choice problem, capital asset pricing models, factor models, portfolio allocation, and mean-variance analysis. Letter grading.


434. Machine Learning and Big Data for Economists. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Discussion of some machine learning techniques including linear regression, random forests, and neural networks. Covers most recent developments at intersection of machine learning and econometrics, now commonly referred to as double machine learning. Machine learning in detail, and discussion of how to apply it to enhance analysis of classical econometric problems, such as program evaluation and demand estimation. Letter grading.

435. Principles of Big Data Management Systems. (4) Lecture, three hours. Limited to Master of Applied Economics students. Focus on modern data management systems that are used in data analytics. Students are exposed to cutting-edge data management concepts and systems and provided with working knowledge needed to manage large-scale data. Covers modern data management techniques of cloud storage systems, NoSQL databases, and map-reduce computing paradigm. Letter grading.

436. Introduction to Financial Accounting. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Financial accounting is concerned with preparation and public dissemination of financial reports designed to reflect corporate performance and financial condition. By providing timely, relevant, and reliable information, these reports facilitate decision-making of investors, creditors, and other interested parties. Financial markets depend on information contained in these reports to evaluate executives, estimate future stock returns, assess firms’ riskiness, and allocate society’s resources to their most productive uses. Letter grading.

437. Health Economics: Understanding Roles of Regulation, Public Policy, and Demographic Change. (4) Lecture, three hours. Limited to Master of Applied Economics students. Financial ac-counting is concerned with preparation and public dissemination of financial reports designed to reflect corporate performance and financial condition. By providing timely, relevant, and reliable information, these reports facilitate decision-making of investors, creditors, and other interested parties. Financial markets depend on information contained in these reports to evaluate executives, estimate future stock returns, assess firms’ riskiness, and allocate society’s resources to their most productive uses. Letter grading.


441C. Applied Data Management for Economists. (1) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to business intelligence software used in financial services companies. Survey of Amazon Web Services, Microsoft Power BI, and Apache Hadoop, and deployment of automated solutions on these platforms. Development of presentation skills necessary for industry, SU or letter grading.

442A. Master of Applied Economics Finance Laboratory. (1) Laboratory, three hours. Limited to Master of Applied Economics students. Simulates tasks of financial researcher, encouraging creative approaches to interest rate monitoring, finding leading indicators, and portfolio construction. Mainly using R, students locate and clean financial datasets, then conduct experiments involving significance tests throughout data pipeline. The coursework includes many open questions that offer students opportunities to take novel approaches and investigate forecasting with a basket of procedures. Letter grading.

442B. Master of Applied Economics Finance Laboratory. (1) Laboratory, three hours. Limited to Master of Applied Economics students. Broadens exposure to tasks seen in financial analyst role. Coding tasks are centered around options option book, depth chart, volume profile, contigent assets, and commodities data. Theory covered consists of behavioral finance relating to technical analysis, applications of portfolio optimization, and trading techniques. Letter grading.

443. SQL and Data Management. (2 to 4) Lecture, three hours. Limited to Master of Quantitative Economics students. Introduction to most requested data management tools in industry. Students gain hands-on experience with SQL database queries and database management through integrations with database management systems, query editors, and Python and R programming languages. Students practice saving advanced commands as stored procedures on collective database, simulating tasks seen in real world. Use of Excel and Visual Basic for Applications to make data management of automated solutions on these platforms. Letter grading.

444. Stock Market and Fundamental Equity Research Analysis. (2 to 4) Lecture, three hours. Limited to Master of Quantitative Economics students. Preparation: basic understanding of finance and financial markets concepts and theories. Exploration of fundamental analysis, method of measuring security’s value by assessing economic and financial factors. Through lectures, readings, and interactive discussions, exploration of macroeconomic and microeconomic factors that affect intrinsic value of security. Study is designed to deepen student exposure to world of equity research through research and development of investment memorandum. Letter grading.

445. Applied Machine Learning for Economists I. (2 to 4) Lecture, three hours; discussion, one hour. Limited to Master of Quantitative Economics students. Exploration of how machine learning can be used to find undervalued real estate opportunities—representative of types of problems frequently faced in industry, by analysts, computer scientists, economists, and data scientists. Use of machine learning algorithms and tools to find undervalued assets through applied approaches, linear time series models, and analysis of property listings dataset. Use of trees and forests to improve ability to find good deals. Incorporation of additional datasets—demographic and census data—and use of principal component analysis and support vector machines to better identify properties.
Eva L. Baker, EdD
Jeffrey J. Wood, PhD
Noreen M. Webb, PhD
Tyrone C. Howard, PhD
Alexander W. Astin, PhD
Marvin C. Alkin, EdD
Professors Emeriti
Sandra H. Graham, PhD
Louis M. Gomez, PhD
Kimberley Gomez, PhD
Megan L. Franke, PhD
Richard Desjardins, PhD
Christina A. Christie, PhD
Mitchell J. Chang, PhD
Alison L. Bailey, EdD
H. Samy Alim, PhD
Faculty Roster
Megan L. Franke, PhD, Chair

Entry to the Major

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.

Pre-major
Students entering UCLA directly from high school can select the Education and Social Transformation pre-major on the UCLA application. Transfer students may select the major. See Transfer Students for details.

Students identified as Education and Social Transformation pre-majors 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 Transformation pre-majors until they satisfy the following minimum requirements: 1) achieve grades of C or better in all lower-division course requirements, 2) file an application to enter the major before completing 135 quarter units.

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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

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.
Transfer Students
Transfer applicants to the Education and Social Transformation major with 90 or more units are considered for admission based on academic achievement. Transfer credit is subject to department approval. Consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Education 10 or 11, and 35.

The Major
Required: at least nine upper-division courses distributed as follows:

1. Two courses from each of the following three areas of competency: Histories and Philosophies of Education—Education 100 through 119; Contexts of Teaching, Learning, and Development—Education 120 through 148; Inquiry and Design for Learning—Education 150 through 168
2. At least one additional course in education, which may come from any of the areas of competency or from courses designated as electives (Community Engagement and Social Change 130, Education 170 through 179)
3. Education 180
4. One community engagement course selected from Education M121XP, 130AX, 130BX, 130CX, M131A, M131B, M131C, M142, 159, 171, 176, 195, 195CE, or 196XP (this course may also be applied toward an area of competency). Students must complete Education 180 prior to taking a community engagement course
5. Capstone course: Education 181. Students must complete five out of the six courses from the areas of competency and complete the community engagement course requirement before enrolling in the capstone course

Policies

Preparation for the Major
Preparation for the major courses must be completed with a C grade or better.

The Major
Each course must be taken for a letter grade, and students must have a grade-point average of 2.0 or better in upper-division education courses.

Undergraduate Minors

Education Studies Minor
The Education Studies minor is intended to address the diverse information needs of the UCLA undergraduate community to allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, provide an introduction for students who wish eventually to pursue careers in education either as teachers or researchers.

Admission
To enter the minor, students must have 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. Applicants are expected to be committed to inquiry of issues central to educational research and practice. Students must follow the program of study in effect at the time of their admission. Students 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.

Information and Media Literacy Minor
The Information and Media Literacy minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic, focused, and critical introduction to information and media literacies. The core courses together with electives provide students with an understanding of the processes, dynamics, and societal implications of the production and dissemination of information and media and skills for their judicious evaluation, consumption, and productive use.

Admission
To enter the minor, students must have a cumulative grade-point average of 2.0 or better, submit a short application stating their interest in the minor, and have completed the two required lower division information studies courses with a grade of B or better. Applications are available on the minor website.

Education MA, PhD

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.

• Doctor of Education/Juris Doctor

Education MA, PhD/Juris Doctor

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/Juris Doctor

Educational Administration EdD

The Department of Education offers a Doctor of Education (EdD) degree in Educational Administration jointly with UC Irvine.

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

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 Program

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

- Master of Education/Latin American Studies MA

Concurrent Degree Program

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

- Master of Education/Juris Doctor

Special Education PhD

The Department of Education offers a Doctor of Philosophy (PhD) degree in Special Education jointly with California State University, Los Angeles.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 Scholarship. (5) Lecture, two hours; discussion, two hours. Introduction to broad landscape of public education in U.S. Intended for those interested in educational research, policy, or teaching in both formal and informal educational contexts. Readings highlight work of educational researchers from UCLA Department of Education, especially ways their scholarship intersects with policy and practice. Students work in groups to identify real-life problem affecting public education in Los Angeles. Study of this problem from multiple perspectives. Conceptualization of socially-just solution. Letter grading.

11. Education, Equality, and Future of American Society: Problems, Prospects, and Policies. (5) Lecture, four hours; 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 sorted on measures (and perceptions) of their ability to fill occupations and roles that are essential to economy; and students are educated in hopes that next generation will acquire knowledge, creativity, and problem-solving skills to solve problems created by previous generations. Focus on understanding challenges, contradictions, and complexities associated with carrying out these functions. Letter grading.

Upper-Division Courses

Histories and Philosophies

100. Introduction to Philosophy of Education. (5) Seminar, two hours; discussion, two hours. Introduction to empirical and analytical educational research. Intended for undergraduates interested in learning how to find, interpret, and evaluate educational research, and to become familiar with methodological issues of conceptualizing inquiry and gathering evidence, including qualitative approaches (e.g., ethnographic, semi-structured interviews, case study), quantitative approaches (e.g., survey, measurement, experimental, descriptive), mixed methods, and design-based research. Highlights multiple methods of inquiry and research, ethics of conducting research in social sciences, and norms of conducting and reporting research in field of education. Overview of selected strands of equity-oriented research in education. Letter grading.

Education / 407


101C. History of Higher Education. (5) Formerly numbered C101.) Lecture, three hours; discussion, one hour. Exploration of major eras in history of higher education, including higher education's role in the development of American society, diversity, parental choice, cultural literacy, teacher empowerment, and role of popular media. Letter grading.

M102. Mexican Americans and Schools. (4) (Same as Chicana/o and Central American Studies M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/o and Chicano educational issues in U.S., with special emphasis on dismantling effects of race, gender, class, and immigrant status on Chicana/o and Chicano educational attainment and achievement. Exploration of how historical, social, political, and economic forces impact Chicana/o and Chicano educational experiences. Letter grading.

104A. Introduction to Exceptional Learners. (4) (Formerly numbered 134.) Lecture, two hours; discussion, one hour. Survey of characteristics and related educational needs of students (preschool through high school) who vary in mental, physical, psychological, and social characteristics. Focus on disabilities, with exploration in area of gifted/talented education. Emphasis on the importance of understanding the legal, social, and philosophical issues associated with it. Students learn perspectives from disability studies and engage in class activities designed to challenge and promote inclusion into practice. Students develop understanding of various areas and exceptionalities of special education with emphasis on role of student special needs in context of general education settings. Letter grading.

105A. Early Childhood Education and Policy. (5) (Formerly numbered 105.) Seminar, four hours. Overview of early care and education (ECE) landscape in U.S. and variety of policy systems used to provide care for young children. Exploration 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.

105B. Topics in Child Development and Social Policies. (5) (Formerly numbered 133.) Seminar, four hours. Research seminar designed to enable students to gain basic understanding of ways in which public policies are established and implemented, learn about 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 critique specific social and economic policies. Letter grading.

105C. Comparative Educational Policies and Practices. (5) (Formerly numbered 109C.) Seminar, four hours. Cross-national survey of educational policies and practices in delivery of education services. Comparative perspective on national context defining institutional differences in policy and practices in delivery and types of school systems, funding mechanisms, and funding mechanism for education services in both developing and developed country contexts. Focus on examination of state of education 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 equity in deployment of resources for realization of inclusive quality education for all. Early childhood education, foundational education, post-secondary education (including university and non-university systems), and lifelong
learning (and adult education) as themes informing cross-national comparison of policies and practices in delivery of education services. Letter grading.

105D. Policy Analysis and Real Politics of Educa-
tion. (Formerly numbered 110.) Lecture, two hours; discussion, two hours. Exploration of relationship between scholarly policy analysis and actual workings of policy systems. Selected topics include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

106A. Education and Law. (Formerly numbered 129.) Seminar, four hours. Research seminar providing overview of high-profile legal controversies that shape so many policy debates at both K-12 and higher education levels. Focus includes campaign finance, safety, religion and schools, educational quality and law, broad-based right to equal educational opportunity, and Internet-related issues and concerns. Letter grading.

106B. Lesbian, Gay, Bisexual, and Transgender Issues in Education and Law. (4) (Formerly numbered 147.) Lecture, four hours. Lesbian, gay, bisexual, and transgender-related controversies that arise in schools, colleges, and universities today and how they are being addressed by legal and education communities. In particular, examination of real-life consequences of current laws and exploration of what might be done to make things better for all persons. Letter grading.

106C. Diversity, Democracy, and Law. (4) Lecture, four hours. Introductory overview of high-profile legal controversies that shape so many policy debates regarding race and education for underrepresented students, free speech and expression, academic freedom and other First Amendment-related controversies and legal issues. Letter grading.

107A. Race, Class, and Education Inequality in U.S. (5) (Formerly numbered 130.) Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of following groups in U.S.: African Americans, Asian Americans and Pacific Islanders, Chicanos/Chicanas/Latinas/Latinos, and low-income white Americans. Examination of how historical development of public education in U.S. has influenced its present form. Critical look at some 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 Achievement. (5) (Formerly numbered 106.) Lecture, four hours. Social/political perspective on education, with particular attention to race, ethnicity, and inequality. Study of structural, social, and personal determinants of educational achievement. Analysis of relationship of schools to social context and other societal 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 Sociology M175.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which education shapes social background, class, race, and gender affect educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic context and health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

109A. Globalization and Learning. (4) (Formerly numbered 152A.) Lecture, two hours; discussion, two hours. Introduction to different conceptualizations of globalization and their relationship to educational processes and learning in contemporary societies. Discussion of several concepts and theoretical lenses as basis for approaching and understanding how dialectics of global and local are affecting educational systems and learning over lifespans. Letter grading.

109B. Global Citizenship Education. (4) (Formerly numbered 152B.) Lecture, four hours. Exploration of issues of global citizenship in education and society as whole by analyzing critical challenges and envisioning possible solutions to multiply layers of theoretical, empirical, and practical implications of global citizenship education. Examination of how global citizen education and education for sustainable development are beginning to impact life, actions, policies, and practices of community organizations, governments, multinational organizations, and other key players in local and global contexts. Exploration of how global citizenship education impacts teaching, and learning as we strive to envision and work toward more just and sustainable society. Letter grading.

C111. Politics of Education. (5) (Formerly numbered C125.) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationships between education institutions and political institutions in society. Political theory and policies as foundation for public policy analysis; interest groups in education policy formation. Letter grading and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

112. Black Student Activism: History of Resistance on Campus. (4) Lecture, discussion, one hour. Black student activism. As higher education became more accessible, a new wave of activists entered college campuses, with Black Lives Matter movement being one of most recent examples. Examination of philosophical, intellectual, social, economic, and political sentiments that have shaped and propelled Black student activism over past two centuries. Exploration of earliest activist activities among Black students, ranging from abolitionist movement to activism for Black and African studies programs during 1960s and 1970s. Interrogation of what past teaches about Black student activism today. Study includes discussions, mock debates, case studies, and primary source analyses. Letter grading.

113. Democracy, Justice, and Education. (5) Lecture, three hours. Democracy, justice, and education are core ideals that define public discourse and school curriculum. Exploration of these ideals from philosophical and practical perspective in context of century-old community school movement. Global pandemic has renewed public interest in community schools framed around anti-poverty reform to provide integrated social supports such as health, nutrition, and after-school programs. Movement also has strong democratic roots tied to local community organizing, and community-based learning—challenging ideas about who has power, how young people learn, and how teachers teach. Inquiry grounded in experience of two UCLA community schools as well as five other community school sites chosen by students. Examination of whether and how these schools are sites of social transformation by investigating contexts, theories, and practices that define their work. Letter grading.

117. Road Trip: Exploring College Campus Cultures across U.S. (5) Seminar, four hours. Study of what other college campuses besides UCLA have to offer. Intended for students interested in understanding prominent aspects of non-mainstream U.S. colleges and universities. Exploration of institutional missions of special mission colleges and universities, how these institutions provide services to students and unique strengths and challenges on these campuses through discussions, mock debates, case studies, and assignments that delve deeper into experiences of attending these special mission colleges and universities. Letter grading.

118. Sociology of Community Colleges. (5) Seminar, four hours. Application of existing research, and sociological and economic theories to analysis of community colleges. Surveyed diverse set of concepts, theoretical frameworks and methods to understand these educational institutions. Examination of this sector of higher education in U.S. through range of qualitative, quantitative, historical, and case studies. Covers economic and 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) Seminar, four hours. Variable topics course organized around courses that introduce students to major sociological, historical, and philosophical perspectives on role of family, religion and schools, educational quality and assessment, school finance, and equal access to education, and school reform. Letter grading.

Contexts of Teaching and Learning

120. Early Childhood Development. (5) Seminar, four hours. Development of positive social behaviors and their enhancement. Broad overview of children’s psychosocial development, with emphasis on personal, social, and emotional attributes of preschool and elementary school child. Aspects of prosocial behavior and aggression. Enhancing prosocial behavior and modification of such negative behaviors as aggression. Review and evaluation of contemporary educational programs for promoting positive social behavior and reducing aggressive behavior. Focus on role of additional factors and past and present 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. (5) (Same as Information Studies M121.) Seminar, four hours. Exploration of relationships between media, technology, and popular culture. Students guided to analyze media representations of non-dominant discourses and cultural narratives and 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. (5) (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 aspects of literacy and their implications for teaching and learning in workplace, healthcare, and community. Consideration of new literacies, interrelationship between literacy and technology, and impact of illiteracy on income and opportunity. Letter grading.

123. Teaching Profession. (5) Seminar, four hours. Exploration of traditional and alternative teaching practices and public responses to teachers teaching and students learning. Examination of education in socio-economic context and discussion of some philosophical questions that challenge teaching profession. Letter grading.

C124. 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 dialogues in multicultural settings. While providing foundational grounding in theory and pedagogy of intergroup dialogue, particular attention to relationships between intergroup dy- namics, structural inequities, and institutions of privilege and oppression, and mental health outcomes and disparities among populations. Concurrently scheduled with course C244. Letter grading.
CM112XP. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) (Formerly numbered CM1163.) (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. (5) (Formerly numbered 166.) Seminar, five hours. Focus on the child-centered approach to examine instructional strategies and assessment practices with preK-12 multilingual and English learner (EL) students who are learning academic content at same time they are acquiring English (and possibly additional languages) in school. Critical comparison of effectiveness of English-only programming with dual-language approaches (e.g., two-way immersion, transitional bilingual education), and the role of accommodations and formative assessments in educational decision making with multilingual and EL students. Letter grading.

127. Educational Psychology: Contexts for Teaching and Learning. (5) Lecture, two hours; discussion, two hours. Preparation of credit to students completing course for course 128. Broad overview of educational psychology, with examination of relationship of teaching and learning; various perspectives as to how children learn; individual differences in learning that arise based on child’s social class, ethnic background, gender, age, and level of ability. Letter grading.

128. Educational Psychology: Contexts for Learning and Development. (4) Lecture, four hours. Not open for credit to students with credit for course 127. Overview of theories, methods, and research in educational psychology. Education psychology involves study of how students learn and contexts that support this learning. Focus on complex processes of study of research and theory related to different aspects of learning including cognition, motivation, and self-regulation. Discussion of ways in which educators can support these processes in students. Letter grading.

M129. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) (Formerly numbered M190.) (Same as Arts Education M192.) Seminar, three hours; enforced requisites: course M142. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education programs at UCLA. Implementation and evaluation of original arts education programs under guidance of faculty members in small course settings. P/NP or letter grading.

M129XP. Arts Education Undergraduate Practicum: Curriculum and Capstone Project. (4) (Formerly numbered M190SL.) (Same as Arts Education M192XP) Seminar, three hours; practicum, three hours; outside study, six hours. Enforced requisites: courses M104, M190. Limited to juniors/senior. 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.

130AX. Instructional Apprenticeship in Teaching and Learning at UCLA Lab School. (4) (Formerly numbered 196C.) Tutorial, 10 hours. Enforced requisites: course 180. Limited to juniors/seniors. Not open for credit to students with credit for course 127. Introduction to teaching and supervised apprenticeship for advanced undergraduate students at UCLA Lab School (Corinne A. Seeds campus). K-6 elementary school on UCLA campus for study of understanding of innovative educational work that goes into teaching and learning at UCLA Lab School through seminars, readings, observations, and discussions. Individual meetings with faculty mentor throughout term. Letter grading.

130BX. Instructional Apprenticeship in Teaching and Learning at UCLA Partner Schools. (4) (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 130CX. Introduction to 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.

130C. Instructional 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 School District (LAUSD) to educate, engage, empower, and serve students and families through community schooling model. Through readings, discussions, guest speakers, and course discourse, students are offered varied opportunities to examine case studies on how two institutions, UCLA and UCLA Community Schools, partner together to ensure support for students. Through participation, students learn that teaching is a profession developed around child’s social class, ethnic background, gender, age, and level of ability. Letter grading.

M131A. Language, Literacy, and Human Development Research Group Seminars. (5) (Formerly numbered M194A.) (Same as American Studies M194A.) Seminar, three hours; laboratory, two hours (when scheduled). Requisite: course 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and language. Letter grading.

M131B. Culture, Gender, and Human Development Research Group Seminars. (5) (Formerly numbered M194B.) (Same as American Studies M194B.) Seminar, three hours; laboratory, two hours (when scheduled). Requisite: course 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and gender. Letter grading.

M131C. Culture, Communications, and Human Development Research Group Seminars (5) (Formerly numbered M194C.) (Same as American Studies M194C.) Seminar, three hours; laboratory, two hours (when scheduled). Requisite: course 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and technologies. Letter grading.


134. Early Childhood Mathematics Education. (5) Seminar, two hours; fieldwork, two hours. Focus on how 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 learning opportunities in early childhood education. Particular attention paid to equity issues. Includes fieldwork at local preschool site working with students in mathematics. Letter grading.

M135. Environmental Justice through Lens of Media and Education. (5) (Same as Information Studies M135.) Seminar, four hours. Exploration of human relationships with nature, historically and today. Students take critical look at ways information has been manipulated, audiences have been manipulated to promote commercial interests over public good. Exploration of progressive movements that have in past challenged—and currently challenge—structural, ideological, political, and unsustainable practices. Letter grading.

M136. Working Families and Educational Inequality in Urban Schools. (4) (Same as Labor Studies M136.) Seminar, three hours; fieldwork, five hours. Exploration of complex connections working-class and poor communities and inequalities in American urban schools. Drawing on multiple disciplinary frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment and divergent conceptual frames that educators research has used to understand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and poor communities. Look inside schools at community services and how they strive to use technology and value learning opportunity to examine systems, structures, and everyday practices that sustain and reproduce inequality and policies that intend to remedy educational inequalities. Opportunities to investigate issues of working-class families and inequalities as they relate to students’ own communities and experiences. P/NP or letter grading.

M137. Critical Digital Media Literacies. (4) (Formerly numbered 137.) Lecture, four hours. Students question relationships with digital media and information society and explore how media and information communication technolog y, media content, and digital culture is improving society, strengthening democracy, and opening up opportunities 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, misslead, distract, and destabilize democracies. Students analyze media representations, question process of normalizing dominant ideologies, and create counter hegemonic media messages. Combines theoretical foundations of cultural studies and critical pedagogy with practical applications of new digital media and technology, as well as traditional print-based means of communication. Exploration of digital and information representations of race, class, gender, sexual orientation, and other identity markers. Students analyze and create media projects related to education. Letter grading.

138. Cognitive Development and Schooling. (5) Lecture, four hours; discussion, one hour. Overview of theories, methods, and research on children’s cognitive development and implications of this work for educational practice. Covers range of research from different perspectives, drawing from domains such as developmental psychology, cognitive psychology, developmental cognitive neuroscience, and education. Students learn about basic cognitive processes. Exploration of ways in which contexts—including those at home, early-care settings, and school—impact children’s development. Letter grading.

139. Social Context of Learners in K-12: Diversity, Residential Mobility, Immigration, and Food Security Conditions in California. (5) Seminar, four hours. Examination of K-12 student experience in California schools. Comparison of geographic disparity in shared experiences, and prevalence of special and difficulty circumstances that have implications for learning and learning outcomes. Key areas identified include race and ethnicity differences in schools; geography and residential mobility (including homelessness and temporary/transitional housing placement conditions); migration-schooling nexus (migrant education); and food insecurity conditions in student population. Fieldwork-driven, relying on data and statistics from California Department of Education and Los Angeles Unified School District. Data from other states offers points of comparison with respect to stu-
Inquiry and Design

150. Quantitative Research in Education: Claims and Evidence. (5) Lecture, two hours; discussion, two hours. Requisite: course 35. Preparation: Students will use four conceptual tools that evaluate soundness of conclusions drawn from research evidence: notions of internal validity, statistical validity, construct validity, and external validity. Students will apply research methods to programs in fields from which they are intended to due for credit. Letter grading.

151. Quantitative Research in Education: Measurement and Assessments. Four hours; discussion, one hour. Enforced requisite: course 35, with grade of C or better. Intended for students who are interested in better understanding what makes good test scores in data. By the end of the course, a quantitative course with a focus on methods and test scores in educational contexts. Introduction to measurement, testing, and assessment in educational settings. Overview of foundational concepts, methods, and practical possibilities. Inquiry and assessment. Overview of basic statistical concepts and methods. Highlighting and evaluating three core concepts of assessment: reliability, validity, and leading to the ability to critically interpret assessment data and apply both classical and modern theories of measurement and validity measures. Students will be asked to understand the social context of assessment. Letter grading.

152. Quantitative Research in Education: Regression Analysis. (5) Lecture, two hours; discussion, two hours. Requisite: course 150 or 151. Preparation: Students will have the opportunity to develop their own quantitative skills and be able to critically interpret research data. Emphasis on learning fundamental concepts of regression analysis and how these were used to address different kinds of questions about education. Students will be required to write papers and final assessments. Letter grading.

156. Introduction to Qualitative Research in Education for Social Transformation. (5) Lecture, two hours; discussion, two hours. Requisite: course 35. Preparation: Students will learn how to think about and analyze data using qualitative methods. Students will learn how to design and conduct qualitative research projects. Letter grading.

157. Qualitative Research in Education: Ethnography. (5) Seminar, four hours. Requisite: course 35. Examination of debates and dilemmas in conducting ethnography research in educational settings. Survey of research methodologies and methods (observations and interviews) in ethnography of education research. With collaboration 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. Designed to help students develop skills important for senior capstone project. Letter grading.

159. Educational Research and Equity in Informal Learning: Collaboration between Hamer Museum and UCLA Education. (5) Seminar, three hours. Requisites: courses 35, 190. Through collaboration with Hamer Museum, introduction to importance of informal learning contexts, specifically in art museums, and value of conducting educational research within these contexts, working in the center of inquiry and exploration. Study of art museum pedagogies and philosophies. Reflection on art museum responsibility to support positive learning experiences for diverse audiences 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 people through mutually beneficial collaboration between researchers and practitioners. This approach challenges more traditional research-practice partnerships power dynamics and creates opportunities for both to jointly negotiate research questions, methods, and data analysis. Letter grading.

160. Transformative Research in Community-Based Settings. (5) Formerly numbered 188A. Lecture, four hours; fieldwork, two hours. Prerequisites: courses 35, 180. Introduction to broad tradition of transformative research in education—public scholarship that aims to disrupt long-standing educational inequities 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. This variety of community-engaged learning opportunities, students are supported to develop ability to analyze education in social and political context, develop skills for evaluating 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. Preparation: Students will learn how to evaluate educational programs in dance, music, theater, and visual arts. P/NP or letter grading.

170. Exploration of Topics in Education. (2) Formerly numbered 184.) Lecture, one hour. Variable topics course, with emphasis on topics of teaching and learning, connecting them to instructional activities implemented in various school 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 and motivation theories and their relevance to strategies for developing curricular instructional techniques and training that contribute to tutoring, counseling, and other instructional assistance in various school settings. Letter grading.

172. Activism through Community Service. (5) Seminar, four hours. Exploration of impact and importance of activism in addressing health, educational, and social disparities that have led to discrimination, segregation, and marginalization based on race, gender, and sexual orientation. Students acquire methodology to combat these issues through participating in activism and community service at UCLA to further address issues that minoritized 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, socioeconomic class, and sexual orientation identities. Students learn from one another’s perspectives, participate in experiential learning exercises, read and discuss relevant materials, explore the down and others’ group 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 forms of privilege and oppression, and work to help create social change. Letter grading.

174A. Experiential Learning in Secondary Classrooms: Health. (4) (Formerly numbered 170C.) Lecture, fieldwork, four hours. Training and supervised practicum for undergraduate mathematics students interested in teaching in secondary classrooms, including working with 9th- through 12th-grade students in school sites. Focus on newly developed training requirements from California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to physical and mental health of students and educators, effective lesson planning, and learning 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 or science students interested in teaching in secondary classrooms, including working with 7th- through 12th-grade students in school sites. Focus on newly developed training requirements from California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to legal and ethical concerns of schooling, culture of schools, issues of bullying, building of classroom community, and learning theories and practices that engage diverse groups of students in classrooms. Active engagement in reflection on issues in schools in which students work. Letter grading.

174C. Experiential Learning in Secondary Classrooms: Science. (4) (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 9th- through 12th-grade students in school sites. Focus on newly developed training requirements from California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to use of technology in classrooms, and learning theories and practices that engage students with diverse needs and interests. Active engagement in reflection on issues in schools in which students work. Letter grading.

175A. Educational Innovations in Sport and Entertainment in Context of Diversity. (4) Seminar, four hours. Introduction to central issues at nexus of education, sports, entertainment, and diversity. Examination and promotion of important innovations in education, sports leadership, and entertainment that promise greater representation, equity, and inclusion of marginalized groups. Examination of media role in forming educators, issues of bullying, and learning 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.

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. Addressed access in terms of which institutional mechanisms are in place to cultivate culture that empowers student-athletes and women to positively materialize in terms of social mobility. Approach to evaluating success of various organizations with diverse leaders and participants in sport focuses on both qualitative and quantitative methods. 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 serves as instrument of critical and culturally relevant knowledge pedagogy. Emphasis on requisite experiences, inclusive of educational and informal learning contexts. Exploration of development and rise of hip-hop from underground movement to dominant, cultural phenomenon; and its appropriation by prominent sports personalities. Exploration of hip-hop’s connection to television, social media, fashion, art, and film. Exploration of how this cultural art form intersects with development of social identities and cultural learnings in traditional and non-traditional educational settings (e.g., public schools, private schools, charter schools, and home schooling institutions); and its 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 in Sport. (4) Seminar, three hours. Introduction to educational and business themes surrounding leadership in athletics. Emphasis on requisite experiences, knowledge, skills set, and abilities to succeed as an athlete in sport for career 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 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. Requisites: courses 35, 160. Introduction to broad tradition of transformative education—public scholarship that aims to disrupt long-standing educational inequities in partnership with local communities. This tradition includes Youth Participatory Action Research (YPAR), Community Based 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 and social change; and understand relationships between systemic issues and community engagement. Letter grading.

178. Sociocultural Issues and Inequity in Community-Based Settings: Practicum. (5) (Formerly numbered 188B.) Lecture, four hours; fieldwork, one hour. Requisites: courses 35, 160. Introduction to broad tradition of transformative education—public scholarship that aims to disrupt long-standing educational inequities in partnership with local communities. This tradition includes Youth Participatory Action Research (YPAR), Community Based 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 and social change; and understand relationships between systemic issues and community engagement. Letter grading.

179. Transformational Research in Community-Based Settings: Practicum. (5) Lecture, four hours; fieldwork, one hour. Requisites: courses 35, 160. Introduction to broad tradition of transformative education—public scholarship that aims to disrupt long-standing educational inequities in partnership with local communities. This tradition includes Youth Participatory Action Research (YPAR), Community Based 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 and social change; and understand relationships between systemic issues and community engagement. Letter grading.

180. Orientation to Community Engagement. (4) Seminar, four hours. First course in three-part series to satisfy community engagement requirement for Education and Social Transformation major capstone project. Introduction to conceptions and contexts of community engagement, focusing on possibilities and challenges of critical 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 professionalism, 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 with community engagement and realize curricular and co-curricular opportunities while completing major. Students compile portfolio that incorporates work completed through Education and Social Transformation courses as well as form reflection paper where students synthesize their learning. This includes reflection on their personal development, how coursework and community engagement experiences contribute to fulfillment of learning outcomes for major, and plans for future. Students produce 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, particularly race, gender, policy issues, 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 for credit. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to conduct seminar on current educational and policy issues, carry out research, 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 conduct seminar on educational and policy issues, carry out research, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

191A-191D. Current Issues in Education. (4 each) Seminar, four hours. Limited to juniors/seniors. Variable topics course organized on selected current issues basis, integrating 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. Requisite: 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...
Participate in weekly teaching apprentice practice seminars. Readings, discussions of group dynamics, and one-on-one meetings with assigned coach. Foster supportive learning environment where each student facilitator can gain more insight 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 input from instructor. Concurrently scheduled with course C292A. Letter grading.

195. Community Internships in Education. (4) Tutorial, one hour; fieldwork, eight to 10 hours. Requisite: course 100B. Limner Education and Social Transformation majors. Internship in approved educational or community setting to be supervised by instructor. Students meet biweekly with instructor, 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. Requisite: course 180. Limited to juniors/seniors. Internship in supervised preapproved K-12 settings coordinated through Center for Community Engagement. Students meet on regular basis with faculty sponsor or designated mentor. Interns construct series of reading and writing assignments that examine educational issues related to meaningful work at internship site. Students expected to learn ways in which urban schools are structured to operate. May be repeated for credit. Individual contract with supervising faculty member required. P/N/P 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/N/P or letter grading.

196RX. Community-Engaged Research Apprenticeship. (4) Tutorial, 12 hours. Requisite: course 180. Recommended: course 160. Limited to junior/senior Education and Social Transformation majors. Research apprenticeship in community setting for upper-division students under guidance of faculty mentor. Faculty advisor must be actively engaged in work of that community and focus of research must address needs of that community. May be repeated for credit. Individual contract required. P/N/P or letter grading.

197. Individual Studies in Education. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culumnating paper or project required. May be repeated for credit. Individual contract required. P/N/P 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.


200D. Methods of Historical Research and Writing. (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.

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 approaches to 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 theory, 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 cultural 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. Interdisciplinary in nature. 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, consciousness raising, community 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.


220C. 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 ethical considerations. Letter grading.


211C. Introduction to Factor Analysis and Item Response Theory. (4) Seminar, three hours. Requisites: course 230B or equivalent, and one course in educational measurement (course 200B, 211A, 211B, or equivalent). Introduction to linear factor analysis (FA) item response theory (IRT) and their uses in research and assessment. Topics include specification, estimation, evaluation, and interpretation of exploratory and confirmatory models. Students use FA and IRT methods to perform range of basic data analyses. S/U or letter grading.

212A. Learning and Education. (4) Lecture, four hours. Models of learning, modeling, reinforcement, motivation, encoding, memory, transfer, individual differences, and instruction. 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 research and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

217B. Cognitive Development and Education. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Critical review of theories and research in cognitive development, with focus on work of Piaget and Vygotsky, and application to current educational issues in educational practice. S/U or letter grading.

217C. Personality Development and Education. (4) (Same as Psychology M245S.) Lecture, four hours. Review of research and theoretical foundations in personality development that bear on school performance: achievement motivation, self-concept, aggression, sex differences, 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 first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectal issues. S/U or letter grading.

217F. Adolescent Development. (4) (Same as Psychology M245F.) 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 puberty, adolescent development, changes in adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. S/U or letter grading.

219B. 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. Cov- erage of special topics not included in other courses on research methods. S/U or letter grading.

221. Computer Analyzes 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 executing empirical research utilizing statistical packages. Each student conducts two original studies. 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. Requisite: 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. Requisite: course 222B. Continuation of fieldwork project started in course 222B, with focus on practical skills and conceptual/methodological issues involved in reducing and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry: Special Topics. (4) Lecture, four hours. Topic for students interested in epistemology, theories, and analyses of qualitative data. Letter grading.

223. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluation proposals, developing program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical questions and continuous improvement methods as means for driving change in complex systems. Introduction to organizational learning and change, and adult learning concepts. Focus on disciplined inquiry as strategy to lead change, whether for individuals, teams, or 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.

CM220B. 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 and 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, M231B. Review of standard item response theory models, multidimensional models, multiple group models and models with covariates, item and person parameter estimation, differential item functioning analysis, testing model fit, linking and scale alignment, computerized adaptive testing. S/U or letter grading.

231D. Advanced Quantitative Models in 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 settings such as schools, corporations, hospitals, communities); consideration of alternative analytical models. Letter grading.

M231E. Statistical Analysis with Latent Variables. (4) Same as Statistics M244.) Lecture, three hours. Requisites: courses 231A, M231B. Introduction to general latent variable modeling framework. Important special cases of this framework include confirmatory factor analysis, structural equation modeling, 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, sound argumentation, mechanics, 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 to examine, at international and comparative levels, link between alternative models of governing, providing and financing education and training systems and impact of alternative outcomes 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 multicultural society, with special emphasis on such 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 child and youth experience, with primary focus on educational outcomes. Topics include examination of experiences of immigrant youth, dynamics of immigrant families, cultural, ethnic, and socioeconomic statuses-related influences in immigrant youths' adjustment, and school-family connections. Letter grading.

241. Conceptual Frameworks for Research in Urban Education. (4) Seminar, four hours. Examination of 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 ne 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 how they have changed over time, as well as how faculty in the Urban Schooling program draw on these frameworks for their research. Letter grading.

242. Learning, Culture, and Schooling. (4) Seminar, four hours. Education typically refers to explicit efforts by experienced members of society to instruct new members in acceptable ways of acting in that society. Study of how learning sciences—broadly, social sciences interested in study of learning, with particular focus on variants of psychology—attempt to explain human cognitive development and how people learn to think and act. Investigation of how accounts of learning and development can be, and have been, used to inform instruction in school. Focus on schools primarily as means to examine how theore
ical perspectives on learning can inform praxis and scholarship or educational justice and equity. Letter grading.


C244. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics include organizing and facilitating dialogues, and the role of community organizations and intergroup dialogue in the facilitation of multicultural and social justice settings. Letter grading.

246A. Decision Analysis and Advanced Computer Methods for Educational Policy and Planning. (4) Seminar, four hours. Methods to facilitate decision analysis impact K-12 schooling, higher education, and technical training/workplace settings. With research paper, oral presentation, and two research briefs, students can pursue decision analysis areas of special interest to their professional and career objectives. S/U or letter grading.

248. Seminar: Special Topics in Child Development and Education. (4) Seminar, four hours. Content varies, limited to four per section. Students interested in one section only may seek permission to attend that section. Letter grading.

249. Theories and Methods in Developmental Science. (4) Lecture, three hours. Broad overview of the theories and methods used to study development of children in context. Introduction to foundational theories in developmental science, and exposure to range of methodological 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) Lecture, four hours. Designed for graduate students, this course introduces core concepts and processes that shape higher education and organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4) Lecture, 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.

250C. Theoretical Frameworks 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. Explanation of how theory and 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 Ed.M. Students. Program stresses use of structural, human resource, political, and symbolic frames 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 critical theorists, including Marx, Nietzsche, Freud, Mercereau, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

253B. Seminar: African Education. (4) Seminar, four hours. Designed for graduate students. Contemporary issues in African educational systems, including questions of efficiency, relevance and responsiveness, links between schools and communities, and policy and practice in education. S/U or letter grading.


253D. Seminar: Latin American Education. (4) Seminar, four hours. S/U or letter grading.

253G. Seminar: Asian and American Education. (4) Seminar, four hours. Basic issues and topics related to Asian Americans in field of education. Examples of issues and topics include Asian Americans and community, socioeconomic status, education-to-work transition, language and culture question. S/U or letter grading.

253H. Seminar: Chicanos/Hispanics and Education. (4) Seminar, four hours. Basic topics and issues related to Chicanos and other Hispanic groups in education. Seminar, four hours. Topics: assessment, access, tracking, segregation, implications for schooling. S/U or letter grading.

253I. Education and Social Change in Middle East and Islamic World. (4) Seminar, four hours. Critical and analytical examination of historical and current 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.


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 including the concepts of comprehensive internationalization across campus, issues of effective leadership and management, and individual aspects of internationalization, including study abroad program development and implementation, international student recruitment and support services, international curriculum—area and language studies, English as a second language programs, international internships and careers, faculty development in international travel and research, international partnerships/branch campuses, international development and grant projects, international alumni, distance learning, baseline course (MOOC)/hybrid models. Letter grading.

260A. Introduction to Programming and Data Management. (4) Lecture, three hours. Fundamental skills of data management. Development of strong foundation in R programming language. R is most popular language for statistical analysis and one of most popular languages for data science applications (e.g., web-scraping, interactive maps). 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). Topics include organizing files, folders, and scripts; reading (importing) and writing (exporting) data; using Git and Github for version control and collaboration; iteration (e.g., loops); conditional execution; writing functions; strings and regular expressions. These general programming skills are prerequisite for further data science applications (e.g., web-scraping, interactive maps). Students become proficient in programming skills/concepts through weekly problem sets, completed in groups. S/U or letter grading.

261E. Higher Education Seminar: Diversity Issues. (4) Seminar, four hours. Examination of how racial diversity and its related dynamics have transformed and at same time been reshaped by institutions of higher education, with focus on students' experiences, new theories and knowledge of institutional climate, educational 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.

272. 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 for broad 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 both issues and policy process. Review of major topics on which U.S. government is active, as well as key actors and their influence. Letter grading.

M266. Feminist Theory and Social Sciences Research. (4) (Same as Gender Studies M266) Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and methodologies. Special emphasis on feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.

270. Introduction to Cultural Studies. (4) Lecture, four hours. Investigation of current trends in cultural studies through examination of different methods of cultural interpretation, seminal texts in cultural studies, and practical classroom engaging popular artifacts of media culture. Emphasis on developing critical media literacy as goal of cultural studies. Letter grading.

272. Case-Study Research in Education Policy and Practice. (4) Discussion, four hours. Use of case-study methods in education policy to identify potential opportunities for applying methodological skills to actual case-study research projects. Focus on single and multiple case studies that investigate issues in education policy and practice. Letter grading.

274. Science, Technology, and Social Research after Eurocentrism. (4) Lecture, four hours. Philosophy of natural sciences for social scientists that examines challenges to conventional research assumptions made by multicultural and post-modern science and technology studies that have emerged since World War II. Focus on sciences and technologies in third-world development projects, comparative ethnoscience and cultural studies research, and new theories of knowledge and how to do maximally objective research emerging from these literatures. Letter grading.

275. Race and Education. (4) Seminar, four hours. Designed for graduate students. Examination of role of race in educational policymaking. Exploration of 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 and literacy, culture, and human development. In particular, examination of history of writing research over last three decades as part of broader intellectual history. Letter grading.

CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) Same as Gender Studies CM278. Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical approaches and practices 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 Gender Studies CM278L. Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

280A. Seminar: Selected Topics in Special Education. (2 to 6) Seminar, two to six hours. Focus on re- search and current issues 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 higher education. Application of critical and educational traditions to understanding of access and equity in college access. Letter grading.

284. Critical Theory in Education. Power, Politics, and Liberation. (4) Lecture, four hours. Designed for graduate students. Introduction to major themes, issues, and methodologies within what has come to be known as critical and educational tradition, including some major theoretical writings in liberal, neo-Marxist left liberal/postmodernist, and Marxist subfields of critical education tradition. Letter grading.

285. Education and Law. (4) Lecture, four hours. Examination of recent high-profile, education-related disputes and issues that have a bearing on education law. Examination of topics including campus safety and privacy, student freedom of expression, technology-related issues, and academic freedom and classroom behavior. Examination of access to quality education by analyzing disputes arising at every stage of educational process, from issues regarding practices that may endanger school-to-prison pipeline to ongoing legal battles 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, impact of burgeoning charter school movement, and rights of undocumented students. Concurrently taught with Law 282. Letter grading.

M286. Language, Culture, and Education. (4) Same as Anthropology M286. Seminar, three hours. Examination of ongoing movement to reclaim and reimagine schooling as site to sustain indigenous, Black, Latinx, Asian, and other minority communities, including ways these identities/memberships intersect with gender identity and expression, sexuality, dis/ability, language, migration, place, class, and more. For centuries, indigenous, working, and minority communities have sought to push against ways nation-state schools have devalued communities, their lifeways, and their lives. Most recently, this movement is indebted to several decades of work on cultural sustaining pedagogy (CSP) that has joined these decades (and centuries) of work to offer vision of school that seeks to perpetuate and foster—to sustain—influential, literate, and cultural pluralism as part of schooling for positive social transformation and revitalization. S/U or letter grading.

287. Research on Language Issues in Education. (4) Seminar, four hours. Roles of language(s) in formal and informal education, including study of opportunities and challenges of teaching and learning language variation found in schools. Examination of language acquisition theories along with those of language ideologies, language policies, and multilingualism. Letter grading.

288. Research Methods in Education. (2) Discussion, two hours. Course facilitates mentorship model of training PhD students in education, with focus on development of graduate student research topics. Assignments, readings, and research topics for students are developed to provide students opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

C299A. Practicum in Intergroup Dialogue Facilitation. (4) Seminar, three hours. Requisite: course C294A. Application and further development of content and skills learned in course C294A. In addition to co-facilitating weekly dialogues, students are expected to participate in weekly teaching apprentice practicum seminars. Readings and readings of emerging group dynamics 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 facilitation, group dynamics, process of self-reflection and critical inquiry of own identities, biases, beliefs, and perspectives. Includes learning as large group and time to individualized consultation and co-facilitation. Concurrently scheduled with course C192A. Letter grading.

295. Freire, (4) Seminar, four hours. Requisite: course C212 or C207 or prior knowledge of Freire’s work. Analysis of intellectual production of Paulo Freire (1921–2006). Study of his life and work in five phases: Brazilian Experience (1921 to 1964); Chilean Experience, where he published his famous books; European Experience, where he worked on postcolonial revolutionary governments in Africa; his return to Brazil and his work as Secretary of Education in São Paulo (1989 to 1993); and his global travels from 1980 until his death in 1997. Focus on work left incomplete before his death (including ecopedagogy and citizen’s schools), and by implication his analyses, critiques, and strategies of his life, methodology of generative word, and comparisons with other theoretical referents. Letter grading.

296A-296D. Seminars: Research Topics in Education. (2 each) Seminar, three hours. Advanced study and analysis of current issues in education. Emphasis on 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-al Theory. (2) Lecture, two hours. Examination and analysis of organizational theories as they apply to school organizations. Letter grading.

296I. Theory in Educational Inquiry. (2) Seminar, two hours. Theory and its application to study of educational settings and institutions. Examination of major paradigms, important schools of thought, and particular theoretical and areas within field of education, with focus both on conceptually and empirically driven projects and in surrounding 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. Emphasis on defining and testing survey methods, design components, planning for fieldwork and data collection, sampling, ethics, and credibility. Letter grading.


301. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential program students. Sequence of laboratory sessions providing peerless teachers with introduction to education technology infrastructure and classroom presentation tools. Introduction to resources and services, 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. Teaching/learning process as applied to personal and community health. Topics include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of state’s health framework. S/U grading.

309. Methodologies for English Language Learner Learners. (2) Laboratory, two hours. Limited to credential program students. Pedagogy for bilingual and English language learners. Discussion of competencies needed by all content area teachers of English language, including strategies for teaching in and through English. Topics include educational issues, organizational approaches, and communicative approach; strategies and activities. Letter grading.

315. Principles and Methods for Teaching Reading for Multiple Subject Instruction. (3) Lecture, three hours. Reading instruction in elementary schools. Analysis of reading programs and programs; study of relationships between reading instruction and reading. Examination and development of instructional programs; analysis and practice of alternative instructional methods. Observation and participation in schools. 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 students. Examination of how children learn to read, write, and use language. Letter grading.

318A. Integrated Methods for Elementary Teachers. (3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas. Aligned with California state frameworks and California content standards for grades K-12 that address needs and interests of diverse students. Letter grading.

318B. Integrated Methods for Elementary Teachers. (4) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and other 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 interests of diverse students. Letter grading.
316C. Integrated Methods for Elementary Teachers. (3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards. Letter grading.

318A. Mathematics Methods. (3) Lecture, three hours. Details of mathematics thinking and use of that information as way to ground learning about mathematics. Letter grading.

320A-320B-320C. Secondary Content and Literacy Methods in English Language Arts. (6) Three-hour seminar. Examination and development of instructional programs and analyses and practices of instructional methods for teaching content in grades 7–12. Emphasis on interdisciplinary approaches that integrate content areas and infuses literacy, technology, and strategies for second language learners. Methods courses are aligned 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. Letter grading.

321A. Secondary Content and Literacy Methods in Ethnic Studies. (3) Formerly numbered 321A. Lecture, three hours. Examination and development of instructional programs, analyses, and practices of instructional methods for teaching ethnic studies in grades 7 through 12. Emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades K through 12, including English Language Development Standards—all of which address needs and various interests of diverse students. Ethnic studies courses cover Chicano 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/rural communities. Letter 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 approaches that integrate 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 courses cover Chicano Studies, African American/Black studies, indigenous studies, Asian American studies, gender/sexuality studies, and how to develop curriculum focused on local histories in Los Angeles urban classrooms. S/U grading.


330A. Observation and Participation. (2 to 6) Site-based fieldwork, 10 to 15 hours. Students are assigned to school sites with racially, culturally, and linguistically diverse student populations. Throughout observation and participation period, students analyze effective teaching strategies for students from different backgrounds, including sociocultural approaches and appropriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 30 hours. Prerequisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. S/U grading.

330C. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 30 hours. Prerequisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

330D. Classroom Residency and Teaching. (4) Site-based fieldwork, 40 hours. Students are employed by local school districts to teach as residents in designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through Teacher Education Program to initiate change project in their local school and/or complete case study on project. S/U grading.

330E-330F-330G. Novice Seminars. (2 to 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 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 person whose interests, strengths, and experiences are in- 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.

390A-390B-390C. Colloquium Series: Human Development and Psychology. (1–1–1) Seminar, one hour. Required of first-, second-, and third-year Human Development and Psychology (HDP) PhD students. Exploring research that provides framework for understanding of human development in educational contexts and everyday lives. Examination of how research that provides framework for understanding of human development in educational contexts and everyday lives. Examination of how these factors shape way students view their language for delivery of core curriculum to bilingual students. Letter grading.

405B. Teaching in Urban Schools: Exploring Fam-liy-School Connections. (2) Seminar, two hours. Limited to credential program students. Exploration of interrelationships among families, communities, and school systems, engaging parents, caregivers, guardians, students, and school personnel for working with families and to develop philosophy of education. Letter grading.

406. Social Foundations and Cultural Diversity in American Education. (3) Lecture, three hours. Intercultural and cross-cultural perspectives of American society, particularly its racial and cultural diversity. Topics include historical development of American society, manifestations of cultural diversity, and ways to learn about students’ cultures and to provide frameworks for teaching and assessment that meet the needs of all students. Letter grading.


409. Language Structure, Acquisition, and Devel-opment. (3) Lecture, three hours. Theoretical foundations of language structure and first and second lan-guage acquisition, with focus on major themes of current research that provide framework for schooling of English language learners. Rationale for bilingual/En-glish language education and language acquisition programs. Historical and current theories and models of language. Letter grading.

411. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluation proposals, developing program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical dilemmas, interpreting research results, 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 research processes impact our work? How can that research be used to improve student affairs practice? Introduction to world of college impact research and orientation to major ongoing studies conducted at UCLA and beyond. Students interact with researchers and provide input on how research results might be utilized to improve work of student affairs. Letter grading.

413A. Language and Culture. (2 to 4) Lecture, two hours. Limited to credential program students. Offered and required for Bilingual Authorization Programs. Focus on language of emphasis for bilingual teachers. Practice in listening, reading, speaking, and writing competencies required for bilingual classrooms. Assessment made at end of course to determine proficiency of Bilingual Authorization Program candidates. Letter grading.

413B. Methodology for Primary Language Instruc-tion. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Consideration of models for teaching cultural and language skills of home speakers of language of emphasis; practice in use of activities to develop student ability to use language for real-world and academic pur-poses in culturally appropriate ways. Consideration of models for teaching subject content in primary language for delivery of core curriculum to bilingual stu-dents. Letter grading.

413C. Culture of Emphasis. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Conducted in language of authorization.

414C. Counseling Practice. (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. Examination of needs for student affairs services, range of services, their philosophical and empirical rationale, and their organization and evaluation to provide knowledge base for developing theories of practice. Ongoing involvement in cooperative learning project to examine these issues both as team members and as individuals. Offered in summer only. Letter grading.

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 student affairs. Overview of qualitative, quantitative, and mixed methods to position students as scholar-practitioners. Exposure to these methods supplemented by examination of how they are used in published research relevant to practice of student affairs. Letter grading.


425. Principles for Teaching Exceptional Individuals. (3) Lecture, three hours. Approaches for teaching exceptional individuals in special and regular education programs are introduced. Emphasis is given to qualitative, quantitative, and mixed methods to position students as scholar-practitioners. Letter grading.

442B. Legal Aspects of Educational Management and Practice. (4) Lecture, four hours. Examination of structure and role of U.S. systems; political dimensions of church/state relations; students' 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 legislative processes, federal, state, and local legal frameworks, and legal analysis. Letter grading.

446A. Urban School Leadership. (4) Lecture, four hours. Analysis of problems of urban school leadership. Emphasis on changing nature of urban principalship, with considerable attention to role of other school and community agencies that interact with urban school principalship. Letter grading.

446B. Urban Leadership Laboratory. (4) Laboratory, four hours. Focus on individualizing research tools and strategies for urban school leaders. 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.


454A. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leadership Program students. 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 S/U or letter grading. Limited to Educational Leadership Program students. Second course in two-course sequence on learning how to do and use action research. Honing of processes and team roles while collaborating on data collection and analysis at educational site. Letter grading.

456. Analyzing Structure and Culture of Schools. (4) Lecture, four hours; discussion, four hours. Limited to Educational Leadership Program students. Use of alternative 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, measurement, and institutionalization. Letter grading.

466. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4) Lecture, four hours. Preparation for educators to teach K-12 students to explore their relationship with critically questioning media representations and creating their own alternative media messages. Critical media literacy combines theoretical foundations of cultural studies and critical pedagogy with practical classroom applications of new digital media as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Educators critically question media and technology, as well as explore new alternatives for creating multimedia messages in their own classrooms. Analysis and creation of media projects related to teaching required. Letter grading.

470A. Seminar: Large Systems and Individual Schools. (4) Seminar, four hours. S/U or letter grading.

471. Principles of Effective Coaching and Leadership. (4) Seminar, four hours. Introduction to principles and practice of effective coaching and teaching for aspiring coaches considering careers in professional and collegiate athletics, K-12 schools, and community- and sport-based sports organizations. Emphasis on principles of social justice and on value and promise of equity, inclusion, and diversity for contributing to creation of more humane, equitable, and harmonious society and nation. Letter grading.

472. Introduction to Philosophies of Coaching. (4) Seminar, four hours. Introduction to philosophies of coaching—overarching frameworks, perspectives, beliefs or values, and evidence of their impact—through a survey of current university-based and practitioner-based approaches to coach development. Introduction to current philosophical frameworks, including critical thinking and critical media literacy, and their potential impact on the field of coaching. Letter grading.

473. Diversity Leadership in Sports and Athletics. (4) Seminar, four hours. Coaching and transformational leadership requires examination of important topics that depend upon analysis of complex, yet essential concepts. Examination of diversity and equity in this course depends on an understanding of diversity and inclusion and how they can be utilized in the context of the sport industry. Letter grading.

474. Sports Management in Professional Organizations. (4) Seminar, four hours. Introduction to diversity and inclusion in sports management and administration. Addressing the importance of diversity and inclusion in sports organizations and how they impact the industry. Letter grading.

475. Leadership Issues in Sports. (4) Lecture, three hours. Coaches and sport management professionals are likely to face numerous ethical issues and dilemmas in their day-to-day professional practices. Introduction
to salient moral and ethical issues involved in physical education, sports, and coaching. Students gain analytical tools to make ethically informed decisions by introducing normative principles and framework to guide decision-making in real-life situations. Covers content areas where ethical decision-making may be relevant including sportsmanship, gambling, coaching, parental responsibilities, violence, drug use and testing, race and gender equity, media, and commodification of athletes. Includes lectures, discussions, analysis of case studies, and applications of decision-making tools to resolve ethical issues. Letter grading.

475. Mental Health in Athletics and Coaching. (4) Lecture, three hours. Introduction to mental health issues in context of athletics and coaching. Mental health issues are prevalent and on rise among athletes. Coaches and other sports personnel are often first line of defense and are best positioned to recognize symptoms and refer athletes to appropriate care and interventions. Cultivates greater awareness of prevalence of mental health issues in athletics. Enables students to recognize common symptoms and manifestations of mental health concerns (e.g., depression, eating disorders, etc.). Students gain knowledge of referrals and resources 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 intellectuals, past and present. Investigation that philosophical position of body has been significant factor in determining historic development of sports and physical activity/physical education e.g., throughout history there were times where body was not held in high esteem, which negatively impacted development of sport. Theology also had impact upon how people perceived body. Sometimes people were of the mind that body wasอมหมด life; sometimes it was condemned depending on theological beliefs. Body has history that is tied to sport history. Modernization theory used to explain how sport and physical activity evolved from pre-modern practice to modern practice. Study takes chronological, descriptive, and interpretative approaches. Letter grading.


482D. Instructional Strategies in Urban Education: Visual and Performing Arts. (1 to 4) Lecture, two hours; discussion, two hours. Emphasis on instructional practices that integrate visual and performing arts into urban classrooms. Debriefing of field experiences implementing 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. Analysis of instructional models relevant to public school education. Assumptions, procedures, and constraints of each strategy considered in terms of learner and task variables. Laboratory experiences in classroom settings permit students systematically to apply and evaluate alternative instructional strategies. S/U or letter grading.


492. Data Centric Problem-Based Learning for Humanizing Purposes. (3) Lecture, three hours. Focuses on humanizing science, technology, engineering, and mathematics (STEM) education through integration of data science and connections to computational thinking into project-based learning (PBL) pedagogical approach. Integration of data connections to computational thinking further contextualizes humanizing STEM education. Participants (pre-service teachers) explore how their K-12 students’ identities and lived experiences connect with STEM challenges. Critical analysis of data and practices of computational thinking (CT) are leveraged toward humanizing STEM purposes within curricular design and implementation of PBL project. Methods course is aligned with 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.

495. Teaching Preparation in Education. (2) Seminar, two hours. Teaching assistants (TAs) are supported while formulating more effective and reflective teachers. Focus on how to create student-centered, inclusive learning experiences. Study of theory (relationship between theory and practice); research (what we know about how people learn), and logistics (how this actually happens for students). Students gain understanding of serving as TA in education (e.g., department responsibilities, responsibilities to students, how to get additional support, etc.). Students have opportunities to apply (in their own sections) what they learn, to reflect collaboratively on their ongoing TA experiences, and to learn from experienced TAs. S/U grading.

498A–498B–498C. Directed Field Experience. (2 to 8 each) Clinical, to be arranged. Field experiences designed to increase understanding of student fields of study. May be repeated for credit. S/U or letter grading.

499A–499B–499C. Advanced Directed Field Experience. (4 to each) Clinical, to be arranged. Dissertation practicum that supports students in developing their proposals. Guides students on how to write their dissertation proposals and serves as writing workshop where students have opportunities to receive feedback from instructors, fellows, and peers. May be repeated for credit. S/U grading.

501. Cooperative Program in Special Education. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA academic adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to UCLA doctoral students in special education. Used to record enrollment in practicum courses taken under cooperative arrangements with USC. S/U grading.

506. Directed Independent Study. (1 to 12) Tutorial, to be arranged (one hour per unit). Individual study or research for graduate students. May be repeated for credit. S/U or letter grading.

507. Preparation for Master’s Comprehensive Examinations or Doctoral Qualifying Examinations. (1 to 12) Tutorial, to be arranged. Individual study for master’s comprehensive examinations or for PhD or EdD qualifying examinations. May be repeated for credit. S/U grading.


418 / Electrical and Computer Engineering

ELECTRICAL AND COMPUTER ENGINEERING

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Overview

Electrical and computer engineers are responsible for inventions that have revolutionized our society, such as the electrical grid, telecommunications, and automated computing and control. The profession continues to make vital contributions in many domains, such as the infusion of information technology into all aspects of daily life. To further these ends, the Department of Electrical and Computer Engineering fosters a dynamic academic environment that is committed to a tradition of excellence in teaching, research, and service. It has state-of-the-art research programs and facilities in a variety of fields. Departmental faculty members are engaged in research efforts across several disciplines in order to serve the needs of industry, government, society, and the scientific community. Interactions with other disciplines are strong. Faculty members regularly conduct collaborative research projects with colleagues in the Geffen School of Medicine; School of Education and Information Studies; School of Theater, Film, and Television; and College of Letters and Science.

Research

The primary areas in the department are circuits and embedded systems, computer engineering, physical and wave electronics, and signals and systems. These areas cover a broad spectrum of specializations in, for example, communications and telecommunications, computer vision, control systems, cybersecurity, electromagnetics, embedded computer networking, embedded computing systems, engineering optimization, integrated circuits and systems, machine learning, microelectronic systems (MEMS), nanotechnology, photonics and optoelectronics, plasma electronics, signal processing, and solid-state electronics.

Undergraduate Majors

Computer Engineering BS

The undergraduate curriculum provides all Computer Engineering majors with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the discipline in the major areas of data science and embedded networked systems. These collectively provide an understanding of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/wearable/implantable systems, robotic systems, and more generally smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Capstone Major

The Computer Engineering major is a designated capstone major that is jointly administered by the Computer Science and Electrical and Computer Engineering departments. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Students identify, formulate, and solve engineering problems and present their projects to the class.

Learning Outcomes

The Computer Engineering major has the following learning outcomes:

- Application of mathematical, scientific, and engineering knowledge
- Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
- Function productively on a team with others
- Identification, formulation, and solution of computer engineering problems
- Effective communication

Requirements

Preparation for the Major

Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering M16); Electrical and Computer Engineering 3; Engineering 96i; 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.

Adjunct Assistant Professors

- Shervin Moloudi, PhD
- Yair Rivenson, PhD
- Zachary D. Taylor, PhD

Adjunct Associate Professor

- Chi On Chui, PhD

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.
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

Requirements

Preparation for the Major

Required: Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical and Computer Engineering 2, 3, 10, 11L, M16; 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, 139A, 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).

Elective Upper-Division Courses (8 units minimum): Two courses from Computer Science M119, CM121, CM122, CM124, 143, 145 or M146 (if not taken as a required course), 161, 180, M182, Electrical and Computer Engineering 102, 113, 114, M119, 133A, M146 (if not taken as a required course), C147, 183DA and 183DB (both must be taken), Mechanical and Aerospace Engineering C137, 185, Statistics 100B, 115, 170, or C180.

Policies

Variable topics courses may be taken as topics apply.

Transfer credit for any of the above is subject to approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and student must have a minimum grade of C in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Undergraduate Minor

Data Science Engineering Minor

The minor is intended to expose students to the entire data science life cycle from both foundational and application perspectives. The foundational courses provide the engineering skills to collect, cleanse, and store data; analyze and draw inference from data; and take action and make decisions. A wide-ranging list of interdisciplinary courses focuses on various data-science applications using these skills.

Admission

To apply for the minor, students must have an overall grade-point average of 3.0 or better, have completed or be in the process of completing in the present quarter the two lower-division required courses with the grade B- or better, and file a petition through Message Center. Steps to apply are outlined on the Office of Academic and Student Affairs website. Information about the minor and the application are available on the minor website.

The Minor

Required Lower-Division Courses (8 units): Computer Science 32, Mathematics 33A.

Required Upper-Division Courses (12 units minimum): One course from Civil and Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; Computer Science M148 or Electrical and Computer Engineering M148; Computer Science 145 or M146 or Electrical and Computer Engineering M146.

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.

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.

Electrical and Computer Engineering

Lower-Division Courses

1. Undergraduate Seminar. (1) Seminar, one hour; outside study, two hours. Introduction by faculty members and industry lecturers to electrical engineering disciplines through current and emerging applications of autonomous systems and vehicles, biomedical devices, aerospace electronic systems, consumer products, 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, two hours; outside study, six hours. Requisite: Physics 1C. Introduction to concepts of
modern physics necessary to understand solid-state devices, including elementary quantum theory. Fermi energies, and concepts of electrons in solids. Discussion of electrical properties of semiconductors leading to operation of junction devices. Letter grading.

2H. Physics for Electrical Engineers (Honors). (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Physics 1C. Honors course parallel to course 2. Letter grading.

3. Introduction to Electrical Engineering. (4) Lecture, two hours; discussion, two hours; outside study, eight hours. Introduction to field of electrical engineering. Basic circuits techniques with application to explanation of electrical engineering inventions such as telecommunication, television, radar, 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 Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 101A. Lecture, four hours; discussion, one hour; outside study, eight hours. Introduction to field of electrical engineering. Basic circuits techniques with application to explanation of electrical engineering inventions such as telecommunication, television, radar, grid, automatic computing and control, and enabling device technology. Research frontiers of electrical engineering. Introduction to measurement and design of electrical circuits. Letter grading.

101A. Engineering Electromagnetics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Mathematics 32A and 32B, or 33A and 33B. Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B. Corequisites: course 115A. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101A. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A. Time-varying fields and Maxwell equations, plane wave propagation and interaction with media, energy flow and Poynting vector, guided waves in waveguides, phase and group velocity, radiation and antennas. Letter grading.


110. Circuit Theory II (Honors). (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: courses 10, M16 (or Computer Science M51A). Letter grading.

110H. Circuit Theory II (Honors). (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 10, M16 (or Computer Science M51A), 102. Corequisite: course 111L (enforced only for Computer Science and Electrical Engineering major), Mathematics 33B. Honors course parallel to course 10. Letter grading.

111. Circuits Laboratory I. (1) Lecture, one hour; laboratory, one hour. Corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transformers. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

115A. Analog Electronic Circuits I. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: courses 115A. Letter grading.

115B. Analog Electronic Circuits II. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 115A. Letter grading.

117. Analog Electronics Laboratory I. (2) Laboratory, four hours; outside study, two hours. Enforced requisite: 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 circuits. Introduction to hands-on design experience based on individual student hardware design and implementation platforms. Letter grading.

118. Digital Signal Processing Design. (4) Lecture, three hours; discussion, one hour; outside study, six hours. Enforced requisite: course 118. 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 wordlength effects. Course project involving original design and implementation of machine learning and signal processing systems for communications, radar, medical imaging, and other imaging applications. Letter grading.

119. Speech and Image Processing Systems Design. (4) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: course 119. 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 transformation in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.

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155. Digital Communication Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100 or 115A, 115A. Transceiver-level circuit analysis and design. 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.

156. Design Studies in Electronic Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 116B. Description of process of design and design implementation of hardware and software tools to complement other laboratory-based design courses. Topics vary by instructor and include communication circuits, power electronics, and instrumentation and measurement and may entail simulation-continuous-time and discrete-time signals. Z-transform. Discrete Fourier transform. Fast Fourier transform. Structures for digital filtering. Introduction to digital filter design techniques. Letter grading.

113A. Digital Signal Processing Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 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 wordlength effects. Course project involving original design and implementation of machine learning and signal processing systems for communications, radar, medical imaging, and other imaging applications. Letter grading.

113B. Digital Signal Processing Design. (4) Laboratory, four hours; outside study, eight hours. Enforced requisite: courses 113A, 113DA. Real-time implementation of digital signal processing algorithms on digital processor chips. Experiments involving A/D and D/A conversion, aliasing, digital filtering, sinusoidal oscillators, Fourier transforms, and finite wordlength effects. Course project involving original design and implementation of machine learning and signal processing systems for communications, radar, medical imaging, and other imaging applications. 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 114. 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 transformation in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.


115B. Analog Electronic Circuits II. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 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 circuits. Introduction to hands-on design experience based on individual student hardware design and implementation platforms. Letter grading.

115C. Digital Electronic Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 100 or 115A, 115A. Transistor-level digital circuit analysis and design. 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.

19. Fiat Lux Fresman 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 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 assignments under the voice of the 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 (s) (for approved semester 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 the same course(s) (excluding this course) for which individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Electrical and Electronic Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 33A, 33B or Mechan-
M116C. Computer Systems Architecture. (4) (Same as Computer Science M119B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course M16 or Computer Science M51A, Computer Science 33. Recommended: course M116L or Computer Science M152A. Computer Science 111. Computer system organization and design, implementation of complex circuits using programmed array logic, design projects. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Same as Computer Science M119.) Lecture, four hours; laboratory, one hour; outside study, seven hours. Requisites: course 132B or Computer Science 118; one course from course 131A, Civil and Environmental Engineering 110, Mathematics 170A, 170B, 170C. Computer Science 111. Design trade-offs and principles of operation of cyber physical systems such as devices and systems constituting Internet of Things. Topics include signal propagation and modeling, sensing, node architecture and operation, and applications. Letter grading.

121B. Principles of Semiconductor Device Design. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: course 131A, and Computer Science M51 or Computer Science M51A. Design and fabrication of semiconductor devices. The design and fabrication of physical objects from materials and techniques. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design. (4-4) Design and fabrication and characterization of p-n junctions and transistors. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metallization, and photolithography with CAD tools used in integrated circuit processing and device design. Device structure optimization tool based on MEDICI; process integration tool based on SUPREM. Course familiarizes students with tools used in CAD to MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite or corequisite: course 121DA. Computer Science M148.) Lecture, four hours; discussion, one hour; outside study, six hours. Enforced requisites: courses 121B, 121DA, 121DB. Letter grading.

123A. Fundamentals of Solid-State I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 2 or Physics 1C. Limited to junior/senior engineering majors. Fundamentals of solid-state physics, introduction to quantum mechanics and quantum statistics applied to solid-state crystal structure, energy levels in solids, and band theory and semiconductor properties. Letter grading.

123B. Fundamentals of Solid-State II. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 123A. Introduction to solid-state properties, lattice vibrations, thermal properties, dielectric, magnetic, and superconducting properties. Letter grading.

128. Principles of Nanoelectronics. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Requisite: Physics 1C. Introduction to fundamentals of nanotechnology for electronics nanosystems. Principles of fundamental quantities: electron charge, effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems such as analysis of dynamics, variability, and noise, contrasted with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronic nanosystems. Letter grading.

131A. Probability and Statistics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 102, 113, 113A. Review of basic probability, basics of hypothesis testing, sufficient statistics and waveform communication, signal-design tradeoffs for digital communications, basics of error control coding, inter-symbol interference channels and orthogonal frequency division multiplexing (OFDM), basics of wireless communications. Letter grading.


142. Linear System Theory, 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 of neurons; techniques for recording neural activity; spiking statistics and Poisson processes; generative models and classification; regression and Kaiming filtering; principal components analysis, factor analysis, and expectation maximization. Letter grading.

M146. Introduction to Machine Learning. (4) (Same as Computer Science M146.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 131A or Civil and Environmental Engineering 110 or Mathematics 170A or 170E or Statistics 100A; Computer Science 32 or Program in Computing 10C; Mathematics 33A. 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.

C147. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 131A, 133A, or Mathematics 205A, and M146, or equivalent. Review of machine learning concepts; maximum likelihood; supervised classification; neural network architectures; backpropagation; regularization for training neural networks; optimization for training neural networks; convolutional neural networks; practical applications in deep learning libraries in Python; recurrent neural networks; backpropagation through time, long short-term memory and gated recurrent units; variational auto-encoders; generative adversarial networks. Overview of adversarial examples and training. Concurrently scheduled with course C247. Letter grading.

M148. Introduction to Data Science. (4) (Same as Computer Science M148.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisites: course 131A, and Computer Science 33B. Introduction to data science. Topics include data gathering and analysis. Data science, data cleaning and feature engineering, model selection, and prediction methodologies. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153. Mechanical and Aerospace Engineering M183B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, or Introduction to general chemical mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques and devices 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 exposure to microstructures and nanostructures in modern clean-room environment. Letter grading.

162A. Wireless Communication Links and Antennas. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 101B. Basic properties of transmitting and receiving antennas and antenna arrays. Array synthesis. Adaptive arrays. Friis transmission formula, radar equa.
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Algorithm, or hardware artifact, each with testing and validation plan. Written documentation of design with oral presentation. In Progress grading (credit to be given only on completion of course 181DB). 181DB. Enforced requisite: course 181DA. Iterations of design. Written in form of thesis documenting results in their societal and technical contexts, and oral presentation/demonstration of final results. Letter grading.

CM182. Science, Technology, and Public Policy. (4) (Same as Public Affairs M164 and Public Policy CM182.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of this material requires critical thinking. Which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM282. Letter grading.

183D. Thesis. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisite: course 101A, 142. Course 183DA is requisite to 183DB. Limited to senior Electrical Engineering majors. Capstone design project, typically in robotics. In Progress grading (credit to be given only on completion of course 183DB).

183DB. Design of Robotic Systems II. (4) Laboratory, four hours; outside study, eight hours. 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, programming, and rapid prototyping. Topics in control include manipulation, motion 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).

184DA-184DB. Independent Group Project Design. (2–2) Laboratory, four hours; discussion, one hour. Enforced requisites: courses M16, 110, 110L. Course 184A is enforced requisite to 184DB. Courses center on group project that runs year long to give students intensive experience on hardware design, microcontroller programming, and project coordination. Several projects based on autonomous robots that traverse small mazes and courses offered yearly and target regional competitions. Students may submit proposals that are evaluated and approved by faculty members. Topics include sensing circuits and amplifier-based design, microcontroller programming, feed-forward 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. Written examination in form of test. Requisite: course 101A or Physics 110A. Senior-level introductory 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) Lecture, four hours; discussion, two hours; outside study, six hours. Special topics in electrical engineering not offered for credit under ordinary basis, such as those taught by
**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, including industry practices and research methods and current literature in the field. May be repeated for credit. Letter grading.

201C. Modeling of VLSI Circuits and Systems. (4) Lecture, four hours; discussion, six hours; outside study, eight hours. Designed for graduate students who are taking VLSI Design Automation. Discussion of models considering variability, reliability, and manufacturability. Topics include performance, signal integrity, power and thermal effects, and manufacturability. Discussion of principles of modeling and optimization codevelopment at various scales ranging across embedded, mobile, personal, enterprise, and data-center scale. 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. Incremental, compact graduate-level introduction to matrix theory and applications for graduate students in all branches of engineering, science, and related disciplines. Topics include discrete and continuous-time linear algebra, and linear language in which virtually all of modern science is conducted. Review of topics mathe taught in undergraduate courses and introduction to graduate-level topics. Letter grading.

206. Machine Perception. (4) (Same as Computer Science M268B.) Lecture, four hours; discussion, two hours; laboratory, one hour; outside study, six hours. Preparation: course 113. Introduction to the theory and applications of machine perception. Essential graduate student background for research in related areas, including computer vision, robotics, and embedded security. May be repeated for credit with topic change. Letter grading.


211A. Digital Image Processing I. (4) Lecture, three hours; discussion, one hour; laboratory, four hours; outside study, four hours. Preparation: computer programing experience. 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.


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, oscillator circuits, frequency and power measurement, and layout. 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 technologies. Bio-inspired communication, transceiver architectures, 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 circuits for synchronization and communication for VLSI systems. Use of both digital and analog design techniques to improve data rate of electronics between functional blocks, chips, and systems. Advanced clocking methodologies, phase-locked loop design for clock generation, and high-performance wire-line transceivers and receivers, and timing recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) (Same as Computer Science M252A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, seven hours. Requisites: courses M115, Computer Science M51A, and 115A. Recommended: course 115C. LSI/VLSI design and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

216B. VLSI Signal Processing. (4) Lecture, four hours; outside study, eight hours. Advanced concepts in VLSI signal processing, with emphasis on architecture design and implementation 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 and healthcare. Letter grading.

M216C. LSI in Computer System Design. (4) (Same as Computer Science M252C.) Lecture, four hours; laboratory, one hour; outside study, eight hours. Requisite: course M216A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

217. Biomedical Imaging. (4) (Same as Bioengineering M217.) Lecture, four 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 completeness. 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 support each other and limit and time-varying resources by optimizing their decision process and learning from their past interaction with other agents. To determine their optimal actions in these distributed, informationally decentralized environments, agents need to learn and model directly or implicitly other agents’ responses to their actions. Discussion of emerging multilateral learning techniques and learning algorithms, including adjustment processes for learning equilibria, fictitious play, regret-learning, and more. Letter grading.

219. Large-Scale Data Mining: Models and Algorithms. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Introduction of a variety of scalable data modeling tools, both predictive and causal, from different disciplines. Topics include supervised and unsupervised data modeling tools from machine learning, such as support vector machines, different regression engines, different types of regularized and kernel techniques, deep learning, and Bayesian graphical models. Emphasis on techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore entire data analysis and modeling cycle: collection, preparation, statistical and machine learning analysis, and evaluation of performance of different models. Letter grading.

221A. Physics of Semiconductor Devices I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 215A, M216A. Analysis and design considerations of junction devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Lecture, four hours; outside study, eight hours. Principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, transduced devices and charge-coupled devices. Letter grading.

221C. Microwave Semiconductor Devices. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, transduced 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 circuits design. Topics include bulk and SOI, CMOS, BiCMOS, silicon-on-insulator, compound, and alloy semiconductors, defects in semiconductors. Recombination mechanisms, transport properties. 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, compound, and alloy semiconductors, defects in semiconductors. Recombination mechanisms, transport properties. Letter grading.

224. Solid-State Electronics II. (4) Lecture, four hours; outside study, eight hours. Requisite: course 223. Techniques to solve Boltzmann transport equation, various scattering mechanisms in semiconductors, high field transport properties in semiconductors, Monte Carlo method in transport. Optical properties. Letter grading.

225. Physics of Semiconductor Nanostructures and Devices. (4) Lecture, four hours; outside study, eight hours. Requisite: course 222. Theoretical methods for calculating electronic and photonic properties of semiconductor nanostructures. Quantum size effects and low-dimensional systems. Application to semiconductor nanometer scale devices, including negative resistance diodes, transistors, and detectors. Letter grading.

229. Seminar: Advanced Topics in Solid-State Electronics. (4) Seminar, four hours; outside study, eight hours. Requisites: courses 223, 224. Current research areas, such as radiation effects in semiconductor devices, dielectrics in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electron emission. Letter 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 systems. Topics include detection and noise characterizations 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 evaluations. Introduction to Monte Carlo simulations. Letter grading.


230C. Signal Processing in Communications. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 131A, 230A. Concepts and implementations of signal processing in communication and signal processing systems. Spectral analysis using Fourier transform and windowing, parametric modeling, eigenvalue analysis, time-frequency analysis, wavelet transform, and sub-band processing. Array processing using beamforming for SNIR enhancement, smart antennas, and source separation and localization. Introduction to compressive sensing and sampling applications. Letter grading.


231A. Information Theory: Channel and Source Coding. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Fundamentals information compression, transmission, processing, and learning. Topics include rate-distortion and algorithms for lossless data compression, connections to model estimation and learning, channel capacity, rate versus distortion in lossy compression, and basic ideas of information theory for networks. Letter grading.

231B. Network Information Theory. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 231A. Point-to-point multiple-input, multiple-output (MIMO) wireless channels: capacity and outage; single-hop networks; multiple access, broadcast, interference, and relay channels; and sources and sides-information; basics of multiterminal communication. Review of information flow over general noisy networks. Letter grading.

231E. Channel Coding Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Fundamentals of error control codes and decoding algorithms. Topics include block codes, convolutional codes, trellis codes, and turbo codes. Letter grading.

232A. Stochastic Modeling with Applications to Telecommunication Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Stochastic processes as applied to study of telecommunications systems, traffic engineering, business, and management. Discrete-time and continuous-time Markov chain processes. Renewal processes, regenerative processes, Markov and semiregenerative stochastic processes. Decision and reward processes. Applications to traffic and queueing analysis of basic telecommunications and computer communication networks, Internet, and management systems. Letter grading.

232B. Queueing Systems and Intelligent Transportation Networks. (4) Lecture, four hours; outside study, eight hours. Requisites: course 131A or equivalent. Modeling, analysis, and design of telecommunication systems; traffic management and design of intelligent transportation systems, communications networks, autonomous vehicular networks, business and management systems, Markovian and non-Markovian queueing systems and networks. Applications to traffic engineering, transportation and autonomous vehicular systems; computer communications, management and business systems. Letter grading.

232E. Large-Scale Social and Complex Networks: Design and Algorithms. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Modeling and design of large-scale complex networks, including social networks, peer-to-peer file-sharing networks, World Wide Web, and gene networks. Modeling and optimization of 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, friend recommendation, viral outbreak predictions. 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, data link, and network functionalities. Wireless topics include wireless channel modeling, single-carrier and multi-carrier systems, multi-antenna radio systems and their correction, architectures and circuits design, transmission and reception, spectrum sensing, wideband signaling, cognitive radio, random 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. Algebraic approach and main theorems in network coding, combinatorial approach and alphabet size, and applications of network coding through benefits, network code design algorithms, secure network coding, network coding for wireless, and other applications. Letter grading.

235A. Mathematical Foundations of Data Storage Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A or equivalent. Research developments in new mathematical techniques for emerging large-scale, ultra-reliable, fast, and affordable data storage systems. Topics include, but are not limited to, graph-based codes and algebraic codes and decoders for modern storage devices (e.g., Flash), rank modulation, rewriting codes, algorithms for data deduplication and synchronization, and redundant array of independent disks (RAID) systems. Letter grading.


237. Dynamic Programming. (4) (Same as Mechanical and Aerospace Engineering M276.) Lecture, four hours; outside study, eight hours. Recommended requisite: course 232A or 236A or 236B. Introduction to mathematical analysis of sequential decision processes. Finite horizon model in both deterministic and stochastic cases. Finite-state infinite horizon model. Methods of solution. Examples from inventory theory, finance, optimal control, Markov decision processes, combinatorial optimization, communications, and traffic. Letter grading.

238. Multimedia Communications and Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

239A. Statistical Signal Processing. (4) Lecture, four hours, discussion, one hour; outside study, seven hours. Special topics in one or more aspects of signals and systems, such as communication, control, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

239B. Seminar: Multiscale 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 signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

240A. Linear Dynamic Systems. (4) (Same as Chemical Engineering M280A and Mechanical and Aerospace Engineering M270A.) Lecture, four hours, outside study, eight hours. Requisite: course 141 or Mechanical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time-variant (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, Jordan/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 techniques. Letter grading.

240C. Optimal Control. (4) (Same as Chemical Engineering M280C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisite: course 240B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programming), to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.

241A. Stochastic Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Review of basic probability, axiomatic development, expectation, convergence of random processes; stationarity, power spectral density. Response of linear systems to random inputs. Basics of estimation. Special random processes, Markov processes, martingales, etc. Letter grading.

242A. Nonlinear Dynamic Systems. (4) (Same as Chemical Engineering M282A and Mechanical and Aerospace Engineering M282A.) Lecture, four hours; outside study, eight hours. Requisite: course 242A or Chemical Engineering M280A or Mechanical and Aerospace Engineering M270A. State-space techniques for analyzing and designing nonlinear and time-varying nonlinear dynamic systems with emphasis on stability. Lyapunov theory (including converse theorems), invariance, center manifold theorem, and monotone and slow-gain stability. Letter grading.

243A. Neural Signal Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more aspects of signals and systems, such as communications, control, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

246. Foundations of Statistical Machine Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A, Mathematics 33A. Introduction to foundations of statistical machine learning. Overview of several widely used learning models, such as linear models, regression, kernel methods and support vector machine (SVM), ensemble learning methods, decision trees and nearest neighbor classifiers. Connections to information theory, Probably Approximately Correct (PAC) learning, stability, bias-complexity trade-off, structural risk minimization, minimum description length (MDL), and universal learning. Introduction to learning with misspecified models and adversarially-vision-learning, clustering, (non-linear) dimensionality reduction, sketching, parametric distribution estimation including Gaussian mixtures, expectation maximization, non-parametric distribution estimation, property testing and neural networks focused on distribution sampling (variational autoencoders [VAEs], generative adversarial networks [GANs]). Discussion of reinforcement learning. Letter grading.

247. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 131A, 133A or equivalent, and courses 146, 147, 148, 149, 150, 153, 164, 184A, and M146, or equivalent. Special topics in deep learning concepts; maximum likelihood; supervised classification; neural network architectures; backpropagation; regularization for training neural networks; optimization for training neural networks; convolutional neural networks; deep learning libraries in Python; recurrent neural networks, backpropagation through time, long short-term memory and gated recurrent units; variational autoencoders; generative adversarial networks; adversarial examples and training. Concurrently scheduled with course C147. Letter grading.

248S. Seminar: Systems, Dynamics, and Control Topics. (Same as Chemical Engineering M257 and Mechanical and Aerospace Engineering M299A.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

250B. Microelectromechanical Systems (MEMS) Design and Fabrication. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M240A or Chemical Engineering M282A or Mechanical and Aerospace Engineering M270A. State-space techniques for analyzing and designing nonlinear and time-varying nonlinear dynamic systems with emphasis on stability. Lyapunov theory (including converse theorems), invariance, center manifold theorem, and monotone and slow-gain stability. Letter grading.
265. Nanoscience and Technology. (Same as Mechanical and Aerospace Engineering M287.) Lecture, four hours; outside study, eight hours. Introduction to new knowledge and technologies in nanoelectronics, nanophotonics, and nanobiotechnology. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanoelectronics, nanomaterials, nanophotonics, and nanobiotechnology. Letter grading.

271. Classical Laser Theory. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 170A. Letter grading.

272. Dynamics of Lasers. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Recent and continuing advances in science and technology of lasers. Topics include nonlinear optical properties, topological defects, and applications. Letter grading.

285A. Plasma Waves and Instabilities. (4) Lecture, four hours; outside study, eight hours. Required of students in Plasma Physics. Recent and continuing advances in plasma science described by macroscopic fluid and kinetic equations. Microwave propagation, plasma oscillations, ion acoustic waves, cyclotron waves, hydrodynamic waves, drift waves. Letter grading.

285B. Advanced Plasma Waves and Instabilities. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: 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, hydrodynamic waves, drift waves. Letter grading.
295. Academic Technical Writing for Electrical Engineers. (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 conference and journal papers, and practice writing for and speaking to various audiences, including potential students, engineers outside their specific fields, and non-engineers (colleagues outside field, policymakers, etc.). Students write in a variety of genres, all related to their professional development as electrical engineers. Emphasis on writing as vital way to communicate precise technical and professional information in distinct contexts, directly resulting in specific outcomes. S/U grading.

296. Seminar: Research Topics in Electrical Engineering. (2) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in electrical engineering. Discussion of current research 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. Limited to graduate electrical engineering students. Weekly seminars and discussion by invited speakers on research topics of heightened interest. S/U grading.

298. Seminar: Engineering Writing. (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 arranged. May be repeated with topic change. S/U or letter grading.

299. MS Project Seminar. (4) Seminar, to be arranged. Required of all MS students not in thesis option. Supervised research in small groups or individually under guidance of faculty mentor. Regular meetings, culminating report, and presentation required. Individual contract required; enrollment petitions available in Office of Graduate Student Affairs. 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.

M495. 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 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.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate electrical 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 electrical 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 electrical engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical 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 electrical engineering students. Usually taken after students have been advanced to candidacy. 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 focuses on the teaching and management of diagnosis and treatment of unforeseen illness or injury. The practice of emergency medicine includes the initial evaluation, diagnosis, treatment, coordination of care among multiple providers, and disposition of any patient requiring expeditious medical, surgical, or psychiatric care. A three- or four-week subsinternship rotation 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 department website.

Emergency Medicine faculty information is available from the department.

ENGINEERING SCHOOLWIDE PROGRAMS

Engineering Schoolwide Programs
Henry Samueli School of Engineering and Applied Science
6426 Boelter Hall
Box 951601
Los Angeles, CA 90095-1601
Engineering Schoolwide Programs
310-825-9580

Overview
The Henry Samueli School of Engineering and Applied Science offers several schoolwide graduate degree programs.

Graduate Study
The Samueli School offers the Master of Engineering (MEng) degree, Master of Science (MS) online degree in Engineering, and Engineer (Eng) degree as schoolwide degrees. The following area-specific online degrees have also been established: MS in Engineering–Computer Networking, MS in Engineering–Electrical, MS in Engineering–Electronic Materials, MS in Engineering–Integrated Circuits, MS in Engineering–Manufacturing and Design, MS in Engineering–Materials Science, MS in Engineering–Mechanical, MS in Engineering–Signal Processing and Communication, and MS in Engineering–Structural Materials.

A certificate of specialization is available in all areas of specialization.

Graduate Majors

Engineering

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available 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 Engineering

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 MS

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–Aerospace MS

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–Computer Networking MS

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.
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 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 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 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 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 Science MS 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 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 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 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, two hours; discussion, one hour; outside study, four hours. Development of skills and insights to successfully publish first research project. P/NP grading.

21. Computing Immersion Summer Experience. (2) Seminar, 18 hours (three weeks). Designed primarily for new students to help them understand UCLA, its culture, structure (quarter system), and academic policies; and to facilitate their transition from high school/community college to university. Designed to immerse incoming computing students in foundation concepts and principles of computer science, with focus on fundamental computer programming principles, methodologies, and techniques. Basic concepts of programming and C++ computing language. Offered in summer only. P/NP grading.

22. Summer Bridge Review for Enhancing Engineering Students. (2) Seminar, 18 hours (two weeks). Designed primarily for new students to help them understand UCLA, its culture, structure (quarter system), and academic policies; and to facilitate their transition from community college to university. Intensive introduction of advanced topics covered in upper-division engineering courses. May be repeated for credit. Offered in summer only. P/NP grading.

23. Finding Industry Internship. (2) Seminar, two hours; outside study, four hours. Designed to engage engineering students in process of formal career development. Students learn about various components of internship/job application and practice preparing relevant materials. Prepares students for career-related social interactions. Development of skills and insights to successfully secure future opportunities, such as first industry internship. P/NP grading.

24. Finding Undergraduate Research Opportunity. (2) Seminar, two hours; outside study, four hours. Designed to engage engineering students 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 research. Offers templates and examples as guides for understanding technical presentations and writing. Development of skills and insights to successfully publish first research project. P/NP grading.

26. Finding Entry-Level Job. (2) Seminar, two hours; discussion, one hour; outside study, two hours. Designed to engage engineering students in process of getting ready to graduate and need help joining workforce. Focus on how to apply to entry-level positions in engineering field, and specifically industries that value engineering degree over technical experience. Offers suggestions to overcome typical barriers students encounter in securing entry-level position including students with no industry internships, lack of professional network, lack of hands-on technical experience, low grade-point average, lack of student organization extracurricular activities, international students, Deferred Action for Childhood Arrivals (DACA) students, and other low-confidence students. Students learn about various components of job application, practice preparing relevant materials, and prepare for career-related social interactions. Students develop skills and insights to successfully secure entry-level job as soon as possible after graduation. P/NP grading.

87. Introduction to Engineering Disciplines. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Introduction to engineering as professional opportunity for freshman students by exploring difference between engineering disciplines and functions engineers perform. Development of skills and techniques for academic excellence through team process. Investigation of national need underlying current effort to increase participation of historically underrepresented groups in U.S. technological workforce. Letter grading.

95. Internship Studies in Engineering. (1 to 4) Lecture, one hour. Limited to first years/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.

96A. 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. Completion of hands-on engineering design projects, preparation of short report describing projects, and presentation of results. Specific project details and relevant majors explored vary with instructor. May be repeated once for credit with topic or instructor change. Letter grading.

96B. Introduction to Engineering Design: Digital Imaging. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Recommended for undergraduate Aerospace Engineering, Bioengineering, Computer Science, Computer Engineering, Mechanical Engineering, and Chemical 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 solid-state imaging devices. How to focus, expose, record, and manipulate telescopic images. Development of photographic vices. How to focus, expose, record, and manipulate fiber laser, general mechanical design and assembly, and machine shop fabrication. Concepts applied to team-based design, construction, and testing of small 3D-printed rocket rovers, large, high-powered rockets. Students present their designs orally and in writing, and evaluate their performance against other student teams. Rockets fired at rocket launch site in class field trip. No prior experience or coursework needed. Study led by experienced undergraduate members of Bruin Rocket Project. Meetings, and design and fabrication, use of MakerSpace facilities and tools. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Entry-level research for lower-division students for gaining hands-on research experience. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Synthetic Biosystems and Nanosystems Design. (4) Lecture, four hours; outside study, eight hours. 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 rewired to perform desirable functions in environmental technologies and applications. Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended required: course M165. Letter grading.

112. Laboratory to Market, Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for seniors/juniors. Introduction to current management concept of product development. Topics include product strategy, development, and product lines; competitive strategy, vectors of differentiation, product pricing, first-to-market versus fast-follower; growth strategy, growth through acquisition, and scaling. Case studies, class projects, group discussions, and guest lectures by speakers from industry. Letter grading.

113. Project Strategies. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for seniors/juniors. Introduction to current management concept of product development. Topics include product strategy, development, and product lines; competitive strategy, vectors of differentiation, product pricing, first-to-market versus fast-follower; growth strategy, growth through acquisition, and scaling. Case studies, class projects, group discussions, and guest lectures by speakers from industry. Letter grading.

116. Statistics for Management Decisions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for seniors/juniors. Introduction to current management concept of product development. Topics include product strategy, development, and product lines; competitive strategy, vectors of differentiation, product pricing, first-to-market versus fast-follower; growth strategy, growth through acquisition, and scaling. Case studies, class projects, group discussions, and guest lectures by speakers from industry. Letter grading.

120. Entrepreneurship for Scientists and Engineers. (2) Seminar, two hours; outside study, four hours. Designed for seniors and graduate students. Identification of business opportunities and outline of needs for buying or raising, corporate structures, and financial accounting frameworks on idea generation, market analysis, and regression analysis. Discussion of specific analytical techniques needed in later courses in program. Development of basic understanding of statistical analysis. Letter grading.

123. Entrepreneurship and Venture Initiation for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Open to students with credit for Management 160. 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, fundraising, corporate structures, and financial accounting frameworks on idea generation, market analysis, and regression analysis. Discussion of specific analytical techniques needed in later courses in program. Development of basic understanding of statistical analysis. Letter grading.

130. Entrepreneurship and New Product Development for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to juniors/seniors. Open to students with credit for Management 163. Designed to deepen understanding of innovations and innovative processes related to 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 thrive in a high-tech environment. Development of new products requires various types of innovation. Availability of digital technologies and global outsourcing have accelerated pace of these innovations. Letter grading.

170. Project-Based Technology Bootcamp for Social Impact. (4) Seminar, two hours; offsite work, five hours; outside study, five hours. Study of design and implementation of new technologies to bring new technologies to market. Students select from set of available technology concepts, many generated at UCLA, that are in need of plans for movement from laboratory to market. Letter grading.

204. Contributions to Economics for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for seniors/juniors. Introduction to current management concept of product development. Topics include product strategy, development, and product lines; competitive strategy, vectors of differentiation, product pricing, first-to-market versus fast-follower; growth strategy, growth through acquisition, and scaling. Case studies, class projects, group discussions, and guest lectures by speakers from industry. Letter grading.
180. Engineering of Complex Systems. (4) Lecture, four hours; discussion, two 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, material, and software engineering are incorporated. Three specific case studies in communication, sensor, and processing systems included to help students understand these concepts. Special attention paid to link material covered to engineering curriculum offered by UCLA 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. Requisite: English Composition 3, 3D, 3DS, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 182EW, 183EW, or 185EW. Focuses on negotiation and complex ethical issues that emerge as result in areas such as biotechnology, information and information technology, and environmental 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 ethical scenarios, including two ethical thought experiments and one analysis of a negotiation from an ethical perspective. Satisfies engineering writing requirement. Letter grading.

182EW. Technology and Society. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Requisite: English Composition 3, 3D, 3DS, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 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 design and deployment of emerging technology products and services. Historical examination of ethical and legal frameworks generally and in relation to technology. Exploration of series of specific contemporary technology-related topics to examine their broader ramifications. Topics include regulation of biotechnology and nanotechnology, global supply chain for engineering products, cryptocurrencies and blockchain, net neutrality, and impact of technology on employment. Offers students tools enabling them to think more proactively and holistically about ethical and societal dimensions of their work as technology creators. Satisfies engineering writing requirement. Letter grading.

183EW, Engineering and Society. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3, 3D, 3DS, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 182EW, 183EW, or 185EW. Limited to sophomore/junior/senior engineering students. Professional and ethical considerations in practice of engineering. Impact of technology on society and on individuals, including ethical values. Compartmentalization, global supply chain for engineering products, cryptocurrencies and blockchain, net neutrality, and impact of technology on employment. Offers students tools enabling them to think more proactively and holistically about ethical and societal dimensions of their work as technology creators. Satisfies engineering writing requirement. Letter grading.

185EW. Art of Engineering Endeavors. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3, 3D, 3DS, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 182EW, 183EW, or 185EW. Designed for junior/senior engineering students. Non-technical skills and experiences necessary for engineering career success. Importance of group dynamics in engineering practice. Teamwork and effective group skills in engineering environments. Organization and control of multidisciplinary complex engineering projects. Forms of leadership and qualities and characteristics of effective leaders. How engineering, computer sciences, and technology relate to major ethical and social issues. Societal demands on practice of engineering. Emphasis on research and writing in engineering environments. Satisfies engineering writing requirement. Letter grading.

188EW. Experimental Courses in Engineering Ethics. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3, 3D, 3DS, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 182EW, 183EW, or 185EW. Limited to junior/senior engineering students. Professional and ethical considerations in practice of engineering and computer science. Emphasis on research and writing within engineering and computer science. Writing and revision of ethical scenarios, including two ethical thought experiments and research writing essays. Readings address technical issues and writing form. Satisfies engineering writing requirement. Letter grading.

191. Seminar Series in Engineering Research. (1) Seminar, one hour. Seminar series in cutting-edge engineering research at UCLA. Each seminar is given by UCLA graduate student researcher or post-doctoral scholar. Designed to be accessible to undergraduate students in any science, technology, engineering, and mathematics (STEM) major. Offers undergraduate students window into excitement of graduate student research experience. Also offers opportunity for graduate students to network about what their peers are doing. P/NP grading.

192. Fundamentals of Engineering Mentorship. (2) Seminar, two hours; outside study, four hours. Principles and practical techniques for instruction of hands-on engineering design projects in high school outreach programs. Curriculum planning, project preparation, classroom management, team collaboration, diversity awareness, fostering of group cohesion, and emergency procedure of less and project for summer outreach program, with practice presentations. P/NP grading.

195. Internship Studies in Engineering. (1 to 4) Lecture, four hours; teaching laboratory, three hours; outside study, eight hours. Model-based systems engineering, computer security, data security, cryptography, etc. One can use most secure components, and resulting system could still be vulnerable. Skills learned ensure that systems and architecture, tested, and operated for specific levels of trust. Aspects include assessing vulnerability and risk for systems, establishing protection principles, and using these to guide to four steps: designing and verifying correctness of design; and constructing and following trusted development and implementation processes. Limited to juniors/seniors. Internship students 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 regularly 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.

199. Directed Research in Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Satisfied individual research or investigation under guidance of faculty mentor. Culminating paper or project required and expected for credit with school approval. Individual contract required; enrollment petition available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Program Management Principles for Engineers and Professionals. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of necessary processes and procedures to successfully manage technology programs. Review of fundamentals, organizational structure, implementation, and performance tracking methods to guide project manager with necessary information to support decision-making process that provides high-quality products on time and within budget. Letter grading.

201. Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of major elements of system engineering process. Coverage of key elements: system requirements and flow down, product development cycle, function synthesis and trade studies, budget allocations, risk management metrics, review and audit activities and documentation. Letter grading.

202. Reliability, Maintainability, and Supportability. (4) Lecture, four hours; outside study, eight hours. Requisite: course 201. Designed for graduate students with one to two years work experience. Integrated logistic support (ILS) is major driver of system life-cycle cost and overall system engineering activities. Overview of engineering disciplines critical to this function—reliability, maintainability, and supportability—and their relationships, taught using probability theory. Topics also include fault detections and isolations and parts obsolescence. Discussion of 6-sigma process, one effective design and manufacturing methodology, to ensure system reliability, maintainability, and supportability. Letter grading.

203. System Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course 201. Designed for graduate students with BS degrees in engineering science and sciences, or MS degrees in selected domain. Art and science of architecting. Introduction to architecting methodology—paradigm and tools. Principles of architecting through assembly design and design architecture and design systems. Discussion of selected elements of architectural practices, such as representation models, design progression, and architecture frameworks. Examination of personalization of system architecting. Letter grading.

205. Model-Based Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Trust is placed in information systems to behave properly, but cyber threats to breaches have included penetration of financial, medical, government, and national security systems. To build systems that can protect confidentiality, integrity, and availability involves more than composition existing architectures; computer security, data security, cryptography, etc. One can use most secure components, and resulting system could still be vulnerable. Skills learned ensure that systems and architecture, tested, and operated for specific levels of trust. Aspects include assessing vulnerability and risk for systems, establishing protection principles, and using these to guide to four steps: designing and verifying correctness of design; and constructing and following trusted development and implementation processes. Limited to juniors/seniors. Internship students 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 regularly 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.

206. Engineering for Systems Assurance. (4) Lecture, four hours; outside study, eight hours. Recommended requisites: course 204, Computer Science 230A. Systems are constructed to perform complex functions and services. How to understand needs of users, analysis of requirements and derived requirements, creation of various system architecture products, design and implementation of systems, and transformation of these components into systems that perform these functions and services. System assurance addresses confidence that systems meet specified operational requirements based on evidence provided by applying assurance
to military realm such as command, control, communications, and cyber. Development of secure, reliable, and dependable systems that range from commercial to military realms such as command, control, communication, intelligence, and cyber. Letter grading.

210. Operations and Supply Chain Management. (4) Lecture, four hours; outside study, eight hours. Introduction to strategic and operational decisions involved in managing enterprises. Operational processes use organization’s resources to transform inputs into services or products. 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 intervene 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. 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 could 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.

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 could 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 a wide variety of spreadsheet models that can be used to solve business and engineering problems, with emphasis on mastery of Excel spreadsheet modeling as integral part of 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; outside study, eight hours. 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 outputs 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. Interaction of technology and society past, present, and future. Change agents and resistance to change. S/U or letter grading. In Progress (471B) and S/U or letter grading.

472A-472D. Engineer in Business Environment. (3–3–1.5) Lecture, three hours (courses 472A, 472B, 472C) and 90 minutes (course 472D). Limited to Engineering Executive Program students. 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 cooperation and participation with California business corporations and government agencies. In Progress (472A, 472C) and S/U or letter grading (credit to be given on completion of 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 and one hour each) 470A-470D. Engineer in Technical 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. Interaction of technology and society past, present, and future. Change agents and resistance to change. S/U or letter grading. In Progress (471B) and S/U or letter 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 of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

M495L. Teaching Preparation Seminar: Writing for Engineers. (4) Same as English Composition M495L) 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 courses 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 Engineers. (2) Same as English Composition M495J) Seminar, one hour; outside study, five hours. Enforced requisite: course M495L. Required of all teaching assistants in their initial term of teaching Engineering writing course. 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.

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.

Faculty Roster

Professors
Blake Allmendinger, PhD
Ali Behdad, PhD (John Charles Hills Professor of Literature)
Adam F. Bradley, PhD
Joseph E. Bristow, Ph.D
Christine N. Chism, PhD
Michael J. Colacurcio, Ph.D
Frederick M. D’Aguilar, BA
Elizabeth M. DeLoughrey, PhD
Helen Deutsch, PhD
Barbara Fuchs, PhD
Alicia Gaspar de Alba, PhD
Yogita Goyal, PhD
Jonathan H. Grossman, PhD
Irsan K. Halici, PhD (Marcia H. Howard Term Professor of Literary Studies)
Eric Jager, PhD
Eleanor K. Kaufman, PhD
Rachel C. Lee, PhD
Jinqi Lin, PhD
Christopher J. Looby, PhD
Marissa K. López, PhD
Saree Makdisi, PhD
Kirstie M. McClure, PhD
Claire E. McEachern, PhD
Kathleen A. McHugh, PhD
Harryette R. Mullen, PhD
Anahid J. Nersessian, PhD
Michael A. North, PhD
Rafael Pérez-Torres, PhD
Michael P. Rothberg, PhD (1939 Society Samuel Goetz Professor of Holocaust Studies)
Mark I. Seltzer, PhD (Evangel Frankel Endowed Professor of English)
Jennifer A. Sharpe, PhD
Deborah K. Shuger, PhD
Mona E. Simpson, MFA
Brian K. Stefans, MFA
Robert N. Watson, PhD
Richard A. Yarborough, PhD

Professors Emeriti
Michael J.B. Allen, PhD, DLitt
Overview

The Department of English is dedicated to the study of the literatures and cultures of those parts of the world in which English is a primary language. Although committed to no single method or approach, the department requires a knowledge of British, American, and Anglophone literary history and an engagement with a range of methodological approaches that foster intellectual curiosity and critical thinking and encourage its students to be not only expert readers and writers but engaged and ethical citizens.

An understanding and appreciation of literature can furnish lifelong rewards. In addition to offering students such personal benefits, the department seeks to foster critical analysis and lucid writing and to teach them to think about how language and representation function in the world. Such skills are essential to success in a variety of professions for which the major in English can provide excellent preparation, including law, administration, business, teaching, media, and entertainment.

Undergraduate Study

Within the Bachelor of Arts (BA) degree in English, qualified students may elect a concentration in creative writing. The department also offers a BA degree in American Literature and Culture.

When selecting courses to fulfill requirements for the majors, students are expected to choose those that best reflect their own interests and simultaneously contribute toward a coherent program in literary studies.

Undergraduate Policies

Students must have completed the Entry-Level Writing requirement before taking any courses in English (other than English Composition 1 or 2). For more information, see Entry-Level Writing in Undergraduate Study.

Graduate Study

A graduate program leading to the Master of Arts (MA) degree is available for students who wish to continue the study of literature at an advanced level. A parallel program continues to the PhD degree. Because the PhD program may require five years or more, it is intended only for qualified students who are seriously committed to advanced literary scholarship and, in some cases, to a career in college or university teaching.

Undergraduate Majors

English BA

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 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 is a designated capstone program. Students have the option of completing a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

Learning Outcomes

The English major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

Entry to the Major

Transfer Students

Transfer applicants to the English major with 90 or more units must complete the following introductory courses prior to admission to UCLA:

- One English composition course, one English critical reading and writing course, one year of English literature survey courses, and 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.

Requirements

Preparation for the Major

Required: English Composition 3, English 4W or 4HW or 4WX, 10A, 10B, 10C taken in the stated sequence (each course is a requisite for the next course).

The Major

Required: Ten 4- or 5-unit upper-division English courses, including (1) four historical period courses, one from each of the following four periods:

(a) literatures in English to 1500—course 140A through 148 or indicated sections of 149,
(b) literatures in English, 1500 to 1700—course 150A through 157, 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 three of the following four areas: (a) gender, race, ethnicity, disability, and sexuality studies—English 100 through 109, M126, 135, 155, 163C, 165B, 166C, or indicated sections of 119, 139, 149, 159, 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, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R, (c) genre studies, interdisciplinary studies, critical theory—course 111A through 129, 144, 146, 147, 153, 156, 161A, 161B, 161C, 163A, 163C, 164A through 164D, 167A, 167B, 171A through 177, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R, and (d) creative writing—courses 136, 137, M138; (3) two elective courses (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.

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.

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).

Honors Program

Students must take one theory course from English 120 through 128 no later than winter quarter of the junior year. In spring quarter of the junior year, students must take course 191H. During fall and winter quarters of the senior year, students must take courses 198A and 198B, in which they write a thesis under the direction of a faculty member.

Policies

Preparation for the Major

A grade of C or better is required in each course.

The Major

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

A foreign language in translation course list is available under Foreign Literature in Translation. Transfer students who have satisfied the College of Letters and Science foreign language requirement at the high-school level through the 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

English M138 may not 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 3.50 and 3.25 overall grade-point average (GPA). Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors. Students should apply by winter quarter of the junior year. For application forms and more information, contact the departmental counselor.

Requirements

The one theory course from English 120 through 128 may fulfill one of three required breadth courses. Course 191H may fulfill any of the two electives for the major. Course 198B may fulfill the second of the two electives for the major.

Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H. The thesis determines whether highest honors, honors, or no honors are received.

American Literature and Culture BA

Students are expected to meet with the 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 American Literature and Culture major is a designated capstone program. Students have the option of completing a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

Learning Outcomes

The American Literature and Culture major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

Entry to the Major

Transfer Students

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, and 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.

Requirements

Preparation for the Major

Required: English Composition 3, English 4W or 4WH or 4WX taken in the stated sequence (English Composition 3 is requisite to any English 4 course), 11, 87.

The Major

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. 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, Chinacano 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, M153, 157, C159, 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 (4 or 5 units) for an upper-division independent study/directed research course (195CE, 195D, 197, 198, 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. 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 literature in its relationship to the natural environment, while improving their skills in reading, writing, creative and critical thinking, and analysis of complex situations in an ethical frame. The minor examines how different cultural forms (for example, fiction, journalism, poetry, film, design, and 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 4W, 4HW, 4WX, or any Writing II course with a grade of C or better. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Kaplan Hall, 310-825-1389. For more information, see the minor website.

The Minor
Required Lower-Division Courses (10 units): English 4W, 4HW, 4WX, or any Writing II course, and English M30 (or M30SL), with grades of C or better.

Required Upper-Division Courses (20 to 24 units): (1) English 118E and M118F or one additional 118E course on a different topic or one other English course that has a primary focus on environmental issues to be selected from a list available in the Undergraduate Counseling Office prior to the opening of enrollment each term (students may petition to substitute other courses), (2) one course selected from American Indian Studies C178, Anthropology 133, 166P, Art History 133D, 133E, C145A, Chinacano 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, M153, 157, C159, 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 (4 or 5 units) for an upper-division independent study/directed research course (195CE, 195D, 197, 198, 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. 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.

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

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.
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,
electronic multimodal communication—
students in the Professional Writing minor ac-
quire deep intellectual and practical skills
needed to perform well as good writers within
the professions they choose, or to become pro-
fessional writers with specific areas of aca-
demic expertise. All Writing Programs courses
in the minor include a segment on digital me-
dia.

Admission
To enter the minor, students must have an
overall grade-point average of 2.0 or better,
have satisfied the Writing II requirement, and
submit a 500-word essay explaining why they
want to declare the minor, and how they expect
it to relate to their professional lives. Minor ap-
plications are submitted on the English De-
partment website. For more information, con-
tact the Writing Programs adviser, 146 Kaplan
Hall, 310-206-1145.

The Minor
Required Lower-Division Courses (4-5 units): Any Writing II course or equivalent.
Required Upper-Division Courses (26-30 units): One core course from English Composition 130A through 130E; two courses selected from
142B, C142C, Community Engagement and
digital humanities. P/NP or letter grading.

Lower-Division Courses
4HW. Critical Reading and Writing (Honors). (5) Lecture, four hours. Enforced requisite: English Com-
position 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.

4GW. 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-En-
gaged Learning). (5) Formerly numbered 4WS. Lecture, four hours; fieldwork, two hours. Enforced requi-
site: English Composition 3. Introduction to literary analysis, with close reading and carefully written ex-
position of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Service learning com-
ponent includes meaningful work with off-campus agency selected by instructor. Satisfies Writing II re-
quirement. Letter grading.

10A. Literature in 1700 to 1850. (5) Lecture, three hours; discussion, one hour. Enforced requisite: En-
lish Composition 3 or 3H. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumenta-
tion, 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. Literature in 1850 to 1910. (5) Lecture, three hours; discussion, one hour. Enforced requisite: En-
lish Composition 3 or 3H. 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. Literature in 1910 to 1950. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. 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.


1. Introduction to Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Satisfies Writing II requirement. Letter grading.

20. Introduction to Creative Writing. (4) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: satisfaction of Entry-Level Writing requirement. Satisfies Writing II requirement. Letter grading.


M30L. Environmental Literature and Culture (Se-
vice Learning). (5) Same as Environment M30SL) Lecture, three hours; discussion, one hour; fieldwork, two hours. Enforced requisite: satisfaction of Entry-
Level Writing requirement. Service learning components includes meaningful work with off-campus agency/agency agencies selected by instructor. P/NP or letter grading.

M40. Structure of English Words. (5) Same as Lin-
guistics M10.) Lecture, four hours; discussion, one hour. Enforced requisite: to three hours of classical origin, including most common base forms and rules by which alternate forms are derived. Stu-
dents may expect to achieve substantial enrichment of their vocabulary while learning about etymology, se-
manic change, and abstract rules of English word for-
mation. P/NP or letter grading.

M50. Introduction to Visual Culture. (5) Same as Film and Television M50.) Lecture, three hours; discus-
sion, one hour; laboratory, two hours. Enforced requi-
site: satisfaction of Entry-Level Writing requirement. Study of 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 Con-
temporary Culture. (5) Lecture, four hours; discus-
sion, one hour. Requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English by America, and hence what is meant by American culture and American studies. Addresses concepts of origins (real or imagined beginnings of cultural forma-
tions), 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.

Graduate Major

English MA, CPhil, PhD

Requirements
Official, specific degree requirements are de-
tailed in program requirements for UCLA gra-
duate degrees, available online 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.

English

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.

No more than one lower-division course may
be applied to the minor. Students may petition
to substitute courses other than those listed
to satisfy elective requirements.

Each minor course must be taken for a letter
grade (unless the course is graded only on a P/
NP basis; no more than 4 units of P/NP may be
applied to the minor), and students must have
an overall grade-point average of 2.0 or better
in the minor. Successful completion of the mi-
nor is indicated on the transcript and diploma.
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, films, and television. Textual focus on medieval works in comparison to analysis of 20th- and 21st-century works may include Beowulf, Sir Gawain and the Green Knight, The Canterbury Tales, The 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 courses in 170 series. Introduction to chief American authors, with emphasis on literature, and short fiction of such writers as Poe, Dickinson, Emerson, Whitman, Twain, Frost, and Hemingway. P/NP or letter grading.

85. American Novel. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses in 170 series. Development, with emphasis on form, of American novel, beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

87. Topics in American Cultures. (5) Seminar, three hours. Enrolled in minimum of 12 units (excluding this course). Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3, English 4W or 4WS, 11. Content varies. Introductory study of diverse peoples, histories, and ideas of America. P/NP or letter grading.

88A-B. Lower-Division Seminars: Special Topics in English, (5 each) Seminar, three hours. Limited to 15 students. Content varies; see departmental counselor for information. P/NP or letter grading.


91B. Introduction to Drama. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Examination of representative plays; readings may range from Greek to modern drama. Emphasis on critical approaches to dramatic text; study of issues such as plot construction, characterization, special uses of language in drama, methods of evaluation, P/NP or letter grading.

91C. Introduction to Fiction. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to prose narrative, its techniques and forms. Analysis of short and long narratives and of critical issues such as plot, characterization, setting, narrative voice, realistic and nonrealistic forms. P/NP or letter grading.

91D. Introduction to Graphic Fiction. (5) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to popularity 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. (5) Seminar, three hours. Enforced requisite: English Composition 3, English 4W or 4WS, 11. Content varies. Effort to provide opportunity for freshmen and sophomores to work with agency involved in issues of public advocacy and social justice. P/NP or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Participation in problems 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.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual written contracts may explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for course 150A or 150B. Survey of Shakespeare’s plays, including comedies, tragedies, and histories, selected to represent Shakespeare’s breadth as artist and as social and historical thinker. 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 introductory level students. Study of critical issues (meters, diction, figurative language, symbolism, irony and simularity, form and structure) and aesthetic issues, including evaluative criteria, followed by close critical analysis of selection of representative poems. 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 or 4CH. Survey of 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 movements. Includes writings by authors as Andrew Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with 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 period or issue; use of terms in 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 4CH. Survey of Asian American literature either produced from or thematically reflecting pre-1980 period. Includes literature, produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movements, appropriation of cultural traditions, ethnic/gender formation, interethnic dynamics, and social movement. Works by such authors as Edith Eaton, Youngah Ling, Carlos 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 4CH. 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 essays. 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 M106) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4CH. Survey of modes of disability in literature, with specific emphasis on thematic connections. Topics may include: a) non-disability studies; race, gender, and disability; 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 4CH. Historical 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 Phillips Wheatley, Frances Harper, Frederick Douglass, Harriet Jacobs, Charles Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. African American Literature from Harlem Renaissance to 1960s. (5) (Same as African American Studies M104B) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 4CH. Historical survey of 20th-century African American literature from New Negro Movement of post-World War I period to 1960s, including oral and written forms (folktales, 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 3H. Introductory survey of African American literary expression from 1960s 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, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Paule 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 3H. 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 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, Jane Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M104E. Topics in African American Literature and Culture. (5) (Same as African American Studies M104E) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, formal, and thematic perspectives. May include African American autobiography, 20th-century African American literature and film, black diaspora literature, postmodern African American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105A. Early Chicana/Chicano Literature, 1400 to 1920. (5) (Same as Chicana/o and Central American Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of Chicana/Chicano literature from poetry of Triple Alliance and Aztec Empire through end of Mexican Revolution (1920), including oral and written narratives by writers including Conrado Espinoza, Juventia Gonzalez, Cleofas Jaramillo, Angelico Chavez, Mario Suidarez, Oscar Acosta, and Evangelina Vignol. P/NP or letter grading.

M105B. Chicana/Chicano Literature from Mexican Revolution to the Movement, 1920 to 1970s. (5) (Same as Central American Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of Chicana/Chicano literature from 1920s through World War II, emphasizing Chicanos and civil rights movement. Oral and written narratives by writers including Conrado Espinoza, Juventia Gonzalez, Cleofas Jaramillo, Angelico Chavez, Mario Suidarez, Oscar Acosta, and Evangelina Vignol. P/NP or letter grading.

M105C. Chicana/Chicano Literature since el Movimiento, 1970s to Present. (5) (Same as Chicana/o and Central American Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of Chicana/Chicano literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central American migration have shaped 21st-century chicana/o. Oral, written and graphic fiction, poetry, and drama by writers including John Rechy; Gloria Anzaldúa, Los Bros Hernández, Ana Castillo. Critical exploration of queer and feminist studies, Reagan generation, immigration debates, and emerging Latina/Latino majorities. P/NP or letter grading.

M105D. Introduction to Latina/Latino Literature. (5) (Same as Spanish and Central American Studies M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of U.S. Latina/Latino literature and introduction to Latina/o studies. May be repeated for credit with emphasis on groups of Caribbean, Mexican, South American, and Central American origin. Representative works read in relation to such topics as relationship between Latina/Latino populations and U.S. cultural spheres, struggle for self-determination, experiences of exile and migration, border zones, enclaves and language, and mestizaje and its impact on cultural production. P/NP or letter grading.

M106S. Studies in Chicana/Chicano and/or Latina/Latina Literature. (5) (Same as Chicana/o and Central American Studies M106S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Variable topics course to give students opportunity to read in relation to issues and themes in Chicana/Chicano and/or Latina/Latina literature. Topics may include border, immigration, revolution, language, gender, sexuality, and diaspora, among others. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105XP. Seminar: Chicana/Chicano and/or Latina/Latina Literature—Community-Engaged Learning. (Formerly numbered M105SSL) (Same as Chicana/o and Central American Studies M105XP) Seminar, three or four hours; field placement, three or four hours. Enforced requisite: English Composition 3. Specialized studies in Chicana/Chicano and/or Latina/Latina literature. In-depth study of various topics related to Chicana/Chicano communities in Southern California, including Chicana/Chicano visions of Los Angeles; Chicana/Chicano protest and social activism; Chicana/Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicano and/or Latina/Latina community and selected by instructor. 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. Specialized studies in Native American and/or transnational indigenous literary and cultural expression. Topics may include oral traditions and histories; gender and sexuality; place and power in comparative perspectives, and multiple genres and forms such as novel, poetry, drama, visual arts, 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, biographical, 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) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of literary 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 and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

108. Intercultural Encounters. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. 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 multiethnic societies. May be repeated for credit with topic or instructor change. P/NP or letter grading.

109. Topics in Race, Ethnicity, and Sexuality. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for autowork with agency approved. May be studied in inscific term. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

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. Not open for credit to students with credit for course 110T. Improvement and refinement of writing about literature. Focus on writing as process, rewriting, and argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

110B. Writing in English Major: Adjunct. (2) Seminar, three or four hours. Students must be concurrently enrolled in affiliated English lecture course (consult Schedule of Classes for courses so designated). Improvement and refinement of writing about literature. May be repeated for credit with topic or instructor or lecture course change. P/NP or letter grading.


110E. Writing in English Major: Advanced Essay. (5) Lecture, three or four hours. Enforced requisite: courses 4W (or 4HW or 4WS). Course 3. Enroll in multiethnic societies. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110T. Writing in English Major: Transfer Students. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 4W (or 4HW or 4WS). Course 3. Open only to English major transfer students. Not open for credit to students with credit for course 110A. Improvement and refinement of writing about literature and culture. Focus on writing as process, rewriting, and nuanced argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

110V. Variable Topics in Professional Writing. (5) Lecture, four hours. Enforced requisite: course 4W (or 4HW or 4WS). Course 3. Focus on writing as adaptable, multifaceted professional skill as well as process, 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: course 4W, 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, philosophical, theological themes. P/NP or letter grading.

113. 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 colonial and postcolonial issues and their stories, with emphasis on techniques of methodological analysis. P/NP or letter grading.

112A. Oral Tradition. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of early textual markings and their uses in biblical literature, including the history of the manuscript, the language, the meaning of interpretation. Discussion of influence of Bible on discrete periods or individual authors in literatures in English. May be repeated for credit with topic or instructor change. P/NP or letter grading.

112B. Celtic Mythology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of myth, dramatic origins, oral epic, folk tale, and ballad. P/NP or letter grading.

114. Lyric Histories. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Knowledge of Irish or Welsh not required. General course dealing with Celtic literature from earliest times to 14th century. P/NP or letter grading.

115A. American Popular Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of major themes, genres, and motifs of interpretation. Discussion of influence of Bible on discrete periods or individual authors in literatures in English. May be repeated for credit with topic or instructor change. 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. Exploration of lyric poetry in English across centuries. Topics may include historical evolution of aesthetic forms, changing concepts of dramatic perspective, matter of literary influence, and complex relationships 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.

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 mystery, dramatic origins, oral epic, folk tale, and ballad. P/NP or letter grading.

115E. Science Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introduction to early science fiction and science fiction literature. P/NP or letter grading.

115F. Community-Based Studies of Popular Literature. (5) Formerly numbered M115SL. (Same as Community English M115SL and English M1110PX.) 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 popular literature, with attention to contemporary communities of readers and writers and formation of civil society. Topics vary and may include children’s literature, literacy 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 faculty and students. 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, typography, and other material aspects of text such as binding and book design. Focus generally on texts from 20th century and later, but can include readings 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, 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 major literary figures and works in the development of American West. 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 interdisciplinary approaches to literature, and of the relationship between literature and other fields such as history, politics, philosophy, sociology, psychology, and the visual arts. 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 may vary and may include not only English literature but foreign literature in translation. 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 works. May include types of visual culture and, for example, 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.

118D. Detective Fiction. (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, agricultural studies, food studies, gender studies, urban and postcolonial ecologies, climate change, cultural biophilia and biophobia, and relationship of literature to sciences. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M119F. 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. 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.

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, mythology or postmodern future, and impact of exile, tourism, and migration in making of cities. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119X. Literary Cities—Service Learning. (5) Formerly numbered 119XS. (Same as Community English M119XS and Community Engagement and Social Change M110XP.) 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, mythology 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. Involves exploration of texts and concepts of historical aesthetics, critical theory, and interpretation from Greeks through 18th century. Readings may include Gorgias, Plato, Aristotle, Longinus, Descartes, Hume, 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 and 10B, or 11 and 87. Investigation of some dominant trends in 19th- and 20th-century aesthetics, critical theory, and interpretation. Topics may include Marxism, psychoanalysis, structuralism, poststructuralism, feminism, and postcolonialism. May not be repeated for credit. P/NP or letter grading.

122. Keywords in Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 11. Recommended: courses 10A, 10B, and 11. Taking its model from Raymond Williams’ classic vocabulary of culture and society, investigation of fundamental 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 reality, 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 11. Recommended: courses 10A, 10B, and 11. 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). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121, and 122. Examination of literary, philosophical, religious, and/or psychological texts that theorize causes, effects, political justifications, cultural sublimations, and literatures and crises of violence. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as Gender Studies M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M112.) Lecture, four hours; discussion, one hour (when scheduled). Requisites: English Composition 3 or 10C. Recommended: courses 120, 121, and 122. Exploration of relationship between culture and imperialism through lens of literary texts to raise questions about what study of empire tells about relationship between power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including way both metonymy and colonizing spaces were transformed. Emphasis on particular historical period or may adopt thematic approach, such as Orientalism. Topics may include construction of gender, race, culture, and nation. May be repeated for credit with topic or instructor change. P/NP or letter grading.

127. Performance, Media, and Cultural Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121, 122, and 123. Examination of concepts and modes of performance, culture, and/or media, broadly construed. Evaluation of different approaches to performance, their historical and cultural contexts, and their cultural representation and meaning. May be repeated for credit with topic or instructor change. P/NP or letter grading.

128. Postcolonial and Transnational Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121, 122, and 123. Examination of critical frameworks of nation and migration, transnationalism, and globalization, and tradition and modernity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

130. Literature of the Americas. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C. Recommended: courses 130, 131, and 132. Exploration of methodologies, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. May include theories of subaltern, orientalist, feminist, and/or indigenist representation and histories and may address representational issues of national sovereignty in wake of globalization and global culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

131. Studies in Colonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C. Recommended: course 140A, 10B, or 10C. Introduction to major themes and issues in postcolonial, intercolonial, and contemporary literature and writings 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/NP or letter grading.

132. Classic and Modern Literature. (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 lens of literary texts to raise questions about what study of empire tells about relationship between power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including way both metonymy and colonizing 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, culture, and nation. May be repeated for credit with topic or instructor change. P/NP or letter grading.

133. Transatlantic Literatures and Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures of Atlantic to examine cultural, political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literatures of Britain and the United States, literature of the Americas may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

134. Nationalism and Transnationalism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of critical frameworks of nation and migration, transnationalism, and globalization, and tradition and modernity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

135. Literature of America. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C. Survey of literatures of Americas, with emphasis on complex ways in which letters of North America, Central America, South America, and Caribbean forge distinctly American per- spective on global affairs. Spans literature from age of encounter to 19th-century U.S. American revolution and 20th-century America. Major movements and beyond, considering such topics as empire, colonialism, slavery, transnational dynamics, and cross-cultural transformations among indigenous, European, and African civilization. May be repeated for credit with topic or instructor change. P/NP or letter grading.

136. Creative Writing: Poetry. (5) Seminar, three or four hours. Enforced requisites: English Composition 3 or 10H, English 4W or 4HW. Weekly exercises in writing of poems, including free verse and line and meter, and study of techniques. Classroom discussion based on student work. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units. No more than 10 units may be completed with same instructor. P/NP or letter grading.

137. Creative Writing: Short Story. (5) Seminar, three or four hours. Enforced requisites: English Composition 3 or 10H. Three average-length stories to be completed each term. Some stories may have instructor’s consent, be substantial revisions of other stories presented. Classroom discus-
143. Drama to 1576. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public playhouse. P/NP or letter grading.

144. Medieval Religious and Literary Studies. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of devotional genres and their complex relationships with traditions of dissent in medieval English culture, encompassing hagiography, vision, conversion narrative, intertextual debate, holophrastic poetry, and Lollard manifestos and translations. 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/NP or letter grading.

145. Medieval Literatures of Devotion and Dissent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of medieval stories and story collections as narrative forms. Medieval stories engage in complex literary conversations across medieval cultural periods, genres, and languages, while story collections often stage art of storytelling within narrative frame to invite self-consciousness about powers of literary language. Texts may include saints’ lives as texts gathered as Matter of Britain, Matter of Rome, or Matter of France; also Mabillon, manuscript collections such as Auchinleck manuscript or Exeter book, framed tales such as Decameron, Canterbury Tales, One Thousand and One Nights, and Gower’s Confessio Amantis, or collections of exempla, legends, and dialect. 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 cultural periods, genres, and languages, while story collections often stage art of storytelling within narrative frame to invite self-consciousness about powers of literary language. Texts may include saints’ lives as texts gathered as Matter of Britain, Matter of Rome, or Matter of France; also Mabillon, manuscript collections such as Auchinleck manuscript or Exeter book, framed tales such as Decameron, Canterbury Tales, One Thousand and One Nights, and Gower’s Confessio Amantis, or collections of exempla, legends, and dialect. 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. Medieval histories survive in every language of medieval Britain, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Multilingual in origin, medieval histories reflect a wide range of perspectives on medieval society, its institutions, and its encounters with the external world. Medieval histories of all types are rich in detail and often provide the only historical documentation of events, institutions, and individuals.

148. Cultures of Middle Ages. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of postmedieval production of Middle Ages as period for scholarly study, neither modern nor contemporary, and continually reinvented by postmedieval writers, artists, and popular media. Topics may include 19th-century production of medi eval studies and its links to nationalism, notable medi evalists and their work, and uses of Middle Ages in popular culture from Umberto Eco to Tolkien, Robin Hood, Arthur, and Merlin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150. 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. Study of representative problem plays, major tragedies, Roman plays, and romances. Substantial research component included. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150C. Topics in Shakespeare. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introduction to or advance ment of student knowledge of Shakespeare’s works through broad or specific topics set by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

151. Milton. (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.

152. Early Modern English and Renaissance. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introduction to the study of early modern English and Renaissance literature in broad or specific topics set by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

153. Theatrical Renaissance: Early Modern Texts and Performances. (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.

154. Renaissance Worlds. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur performances in court, churches, and countryside; varied sorts of plays—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.

155. Early Modern Literary Studies. (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.

159. Transatlantic Romanticism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of works by William Blake, William Wordsworth, Coleridge, Austen, and other authors. May be repeated for credit with topic or instructor change. P/NP or letter grading.

159R. Topics in Literature, circa 1500 to 1700: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of literature from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

160. 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. Intensive study of poetry across genres and throughout period. Topics may include rise of satire, verse forms including Pin danic 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. Survey of major novelists until 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

162A. Earlier Romantic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of works by Blake, William Wordsworth, Coleridge, Austen, and other authors. 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 works 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. Intensive study of works by Blake, William Wordsworth, Coleridge, Austen, and other authors. May be repeated for credit with topic or instructor change. P/NP or letter grading.

163B. Transatlantic Romanticism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of relationships among and between different revolutionary currents—political, economic, and aesthetic—in British Romantic period, developing readings of literary texts that situate them contextually within which they emerged, and to which they contributed in turn. Recovery of sense of how literary and extra-literary texts emerged in common relationship; exploration of the nature of Romanticism itself. Readings from work of Blake, Wordsworth, Coleridge, Southey, Austen, Byron, Keats, Wordsworth, and others. May not be repeated for credit. P/NP or letter grading.
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studies have been central in generating new conceptual frameworks for thinking through complex issues related to interconnectedness of Atlantic rim cultures. With focus on ways in which cultures, ideologies, and political identities are reworked and reinscribed by transatlantic movements of peoples, ideas, and cultural artifacts, expansion of notions of Romanticism to include transoceanic 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 context in which literary works that most influenced her: Mary Wollstonecraft’s Vindication of Rights of Woman, Gothic novel, and Maria Edgeworth’s Belinda.

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 Napoleonic 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 development of novel from 1800 to 1850, with focus on evolution of genre in relation to social, political and cultural contexts in which readings were composed, circulated, and received. May be repeated for credit with topic or instructor change. 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 1890 in relation to romance and ideological critical, social thought, and political writing. 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. Study of development of English literature since 1700 to 1850 in relation to literary, social and political developments in England, with its principal continental influences, since beginning of 20th century to end of World War II. P/NP or letter grading.

165B. Gender, Sexuality, Body, 1700 to 1850. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question of gender in literature of period known as "Romantic" and "Victorian" is clouded by influences of significant historical events such as French Revolution and the Napoleonic Wars, and the influence of industrialization, urbanization, and changes in social attitudes toward sexuality, marriage, and the family. May be repeated for credit. P/NP or letter grading.

165C. Protestant Dissent and English Literature, 1640 to 1832. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Religious doctrines, political ideologies, cultural practices, and aesthetics of Protestant dissent, with some attention to transatlantic radicalism, but main topic is British dissent. Adaptations of such theologies as Lutheranism, Calvinism, Anabaptism, Unitarianism, and Methodism in Scotland, England, and Wales from English Civil War and Glorious Revolution in 1649 to 1689. Texts include representative theological and political theory (Luther, Calvin, Locke, Priestley, Paine, Wollstonecraft) and representative poetry and fiction (Milton, Bunyan, Defoe, Blake, Coleridge, Shelley, Byronic). P/NP or letter grading.

166A. Colonial Beginnings of American Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures of discovery and exploration, contact, and settlement, with emphasis on genres that express distinct colonial identities, myths, and religious visions. P/NP or letter grading.

166B. American Literature, 1776 to 1832. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures from Revolution through early republic, with emphasis on genres that reflect systematic attempts to create representative 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). Requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literatures from Jacksonian era to end of Civil War, including emergent tradition of American Romanticism, 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 fiction 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 from Puritan period through end of 19th century. P/NP or letter grading.


170B. American Literature, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Historical survey of American literature from turn of century to end of World War II. P/NP or letter grading.

170C. American Literature since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Historical survey of American literature since end of World War II. P/NP or letter grading.

171A. Later 19th-Century Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Developments in English poetic genres in relation to significant movements such as aestheticism, decadence, feminism, and imperialism from middle decades of 19th century to turn of 20th century. P/NP or letter grading.

171B. 20th-Century British Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of major British poets from 1900 to present. P/NP or letter grading.

171C. 20th-Century British Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of major British novelists and short story writers from 1900 to present. P/NP or letter grading.

172A. Drama, 1580 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of American drama from its beginning to present day. Historical survey of American drama from 1580 through World War II. P/NP or letter grading.

172B. Drama, 1945 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Study of American drama from its beginning to present day. Historical survey of American drama from 1580 through World War II. P/NP or letter grading.

172C. American Drama. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Survey of American poetry from beginning of 20th century to end of World War II. P/NP or letter grading.

172D. American Poetry since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Study of American poetry since beginning of 20th century to end of 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, 10C, or 11 and 87. Study of American poetry from 1900 to 1945. P/NP or letter grading.


173C. Contemporary American Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry from beginning to 20th century to end of World War II. P/NP or letter grading.

174A. American Fiction, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories from beginning of 20th century to end of World War II. P/NP or letter grading.

174B. American Fiction since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories since end of World War II. P/NP or letter grading.

174C. Contemporary American Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories, mostly by
living authors, with emphasis on emerging issues and aesthetics. May be repeated for credit with topic or instructor change. P/NP or letter grading.

175. American Nonfictional Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Variable specialized studies course in American prose essays, autobiographies, travel narratives, and other. Partial emphasis on genre and/or historical period vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

176. Hemispheric American Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Lecture, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Enforced requisite: English Composition 3. Analysis of American literature from hemispheric rather than nation-based perspective. Historic breadth in study of American literature while posing such crucial theoretical issues as emergent of U.S.Engaged 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). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Interdisciplinary study of American culture in its relationships to other disciplines, including art, architecture, history, music, politics, and various social sciences, with emphasis on application of literary methodology to historical survey of American culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

179. Topics in Literature, circa 1850 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes and departmental descriptions for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

180. Topics in Literature and Language. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes and departmental descriptions for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

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 equipping 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, and 10C, or 11 and 87. 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.

181B. Topics in Interdisciplinary Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181C. Topics in Critical Theory. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181D. Topics in Imperial, Transnational, and Post-colonial Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. 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.

182A. Topics in Medieval Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182B. Topics in Renaissance and Early Modern Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for 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, 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.

182D. Topics in Romantic Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. 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.

182E. Topics in 19th-Century Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. 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.

182F. Topics in 20th- and 21st-Century 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.

183A. Topics in Colonial American Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for 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 19th-Century American Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Consult Schedule of Classes for 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 20th- and 21st-Century American Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. 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.

184. Capstone Seminar: English. (5) Seminar, three hours. Enforced 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. Letter grading.

185B. Professional Writing Capstone. (4) Same as English Composition M185B. Seminar, four hours. Limited to junior/senior Professional Writing minors. Topical writing workshops with specialized 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.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.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Tutorial, to be arranged with USIE facilitator 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 requisite: Honors Collegium 101E. Tutorial, to be arranged with USIE facilitator 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 upper division lecture course. May be repeated for credit 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 contract required. Honors content noted on transcript. Letter grading.

190H. Honors Research Colloquia in English. (1) Seminar, one hour. Enforced corequisite: course 190A or 198B. Designed to bring together students under-taking supervised tutorial research for departmental honors in senior setting with one or more faculty members to discuss their own work in progress and critically evaluate honors students projects. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

M191A. Topics in African American Literature. (5) Same as African American Studies M179A. Seminar, three to four hours. Enforced requisite: English Composition 3. Variable specialized studies course in African American literature. Topics may include Harlem Renaissance, African American Literature in Nidie, 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/Latino Literature. (5) Same as Chicana/o and Central American Studies M139S. Seminar, three or four hours. Enforced requisite: English Composition 3. Variable specialized studies course in Chicana/Chicana and/or Latina/Latino Literature. Topics include labor and literature; Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiographies; Chicana/Chicana journalists; literacy New Mexico; specific literary genres. 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 American Studies M186S. Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include Asian American fiction, African American poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.
M191D. Topics in Queer Literatures and Cultures. (5) (Same as Gender Studies M191D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191D.) Seminar, three or four hours. Enforced 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 Gender Studies M191E and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191E.) Seminar, three or for 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.

M191P. Careers in Humanities. (4) Exploration of wide range of careers, with hands-on practice in crafting professional narrative. Guest lectures from UCLA professionals and alumni—all experts in career planning and local industry. Students study, define, analyze, promote, and/or appropriate their practical applications to life after graduation. Exploration of wide range of careers, with hands-on practice in crafting professional narrative. Guest lectures from UCLA professionals and alumni—all experts in career planning and local industry. Students study, define, analyze, promote, and/or appropriate their practical applications to life after graduation. Limited to juniors/seniors. Internship in environment M192.) Seminar, two hours. Training and supervised practicum for undergraduate student editors and their supervising faculty member. May be repeated for credit. P/NP grading.

191H. Honors Research Seminars: English. (5) Seminar, three hours. Enforced requisite: one course from 120 through 128. Open only to students who are eligible and apply for honors program in English. Introduction to research techniques and mastery of various approaches and applications of critical methodology as it relates to interpretation and evaluation of texts. Development and presentation of proposals for honors projects. Completion under graduate approval of a faculty member. Culminating paper or project required. May be repeated for credit. Individual contract required. In Progress (180B) and letter (198B) grading.

192. History of Literary Criticism and Aesthetic Interpretation. (4) Formerly numbered 201A.) Seminar, three hours. Examination of major texts in literary criticism and aesthetic interpretation from classical to contemporary period with focus and topics to be set by individual instructor. S/U or letter grading.

202. Narrative Theory. (4) Seminar, three hours. Intro- duction to concepts and theories of narrative. These may include historical, 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 origins of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as rapping and joking. S/U or letter grading.

205C. Studies in Oral Traditional Genres. (4) (Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of variety and history of, and scholarship on, oral forms (ballad, song, epic, proverb, riddle, folktale, legend) or set of closely related oral traditional genres. S/U or letter grading.

210. History of English Language. (4) Lecture, four hours. Studies in Old English grammar, lexicon, phonon- ology, and pronunciation to enable students to read literature silently and aloud. Reading of as much of more interesting Old English prose and poetry as can be read in one term. S/U or letter grading.

212. Middle English. (4) Lecture, four hours. Requi- site: 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. (3 to 6) Seminar, two hours. Analysis of medieval manuscripts with regard to place and date of origin. May be repeated for credit. Individual contract required. S/U or letter grading.


245. Chaucer. (4) Seminar, three hours. Studies in 20th- and 21st-century literatures in English. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to place and date of origin, (2) provide training in accurate reading and transcription of 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.
M260A. Topics in Asian American Literature. (4) (Same as Asian American Studies M260.) 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 and Chicano Studies M268.) 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/Chicano discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

M262. Studies in Afro-American Literature. (4) (Same as African American Studies M200E.) Lecture, four hours. Intensive research and study of major themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.

265. Postcolonial Literatures. (4) Seminar, three hours. Study of aesthetic, historical, and social backgrounds to literatures of former British colonies that became independent after 1947. General issues related to way imperialism, colonialism, and postcolonialism have helped to shape and have been shaped by literature in English. May be repeated for credit. S/U or letter grading.

M266. Cultural World Views of Native America. (4) (Same as American Indian Studies M200B.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religious and 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 ethnomusicology. 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 postcolonial theory.

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 urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

M299. Interdisciplinary American Studies. (6) (Same as History M299.) Discussion, four hours. Readings, discussion, and papers on common theme, team-taught by faculty members from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum 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. (Seminar, three hours. Required of all applicants for teaching assistantships in English. Introduction to the 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. (Seminar, two hours. Required of all teaching assistants in their initial quarter of teaching. Mentoring and group teaching assistant conferences. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. 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
Oliv J. Sorenson, PhD, Chair

Faculty Committee
Oliv J. Sorenson, PhD (Management, Sociology)
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, 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
Rajit Gadh, PhD
Thomas W. Gillespie, PhD
Alexander D. Hall, PhD
Susanna B. Hecht, PhD
Ursula 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)
Shailly 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)
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. Pincetl, 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 Jackson, MD, MPH
Mary D. Nichols, JD
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. Tripathi, PhD

Assistant Professors
Liz Koslov, PhD
Karen A. McKinnon, PhD
Pablo E. Saide, PhD
Robert Eagle Tripati, PhD

Adjunct Professors
Mark A. Gold, DEnv
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
Shanna Shaked, PhD, MAT
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, fragmentation of habitat, and the need to restore ecological function to sprawling urban settlements in a manner that supports economic growth and that is socially just and equitable.

Mission
The mission of the UCLA Institute of the Environment and Sustainability (IoES) is to advance cross-disciplinary research, teaching, and public service on matters of critical importance to the planet and the campus community.

Undergraduate Study
The Bachelor of Science (BS) degree in Environmental Science is an innovative dual-component degree program for students seeking a challenging and invigorating science curriculum. The first component, the Environmental Science major, provides students with disciplinary breadth in several areas important to environmental science. The second component, a minor or concentration in one of seven environmental science areas, provides students with focused disciplinary depth in an area of their choosing. The minor in Environmental Systems and Society is designed for students who wish to gain a deeper understanding of the relationships between 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 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

Entry to the Major

Transfer Students

Transfer applicants to the Environmental Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two general chemistry courses with laboratory for majors, two general biology courses with laboratory for majors, two calculus courses, and two calculus-based physics courses.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Chemistry 1A, 1B, and 14B (or 20A, 20B, and 20L), Environmental Science 7, Environmental Science 7A, Environmental Science 7B, Environmental Science 3A, Environmental Science 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 175 and four additional courses, two of which must be upper-division, from any of the above atmospheric and oceanic sciences courses beyond the minimum four required or from Atmospheric and Oceanic Sciences 1, 2, 3, 186 (must be taken twice), Chemistry 103, 110A, 110B, 113A, 113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, C119A, 121, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 135, 136, 146, 170A, 170B, Physics 110A, 110B, 112, 122, 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 Pass/Not Passed basis.

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, 105, 107, 112, 130, 141, Civil Engineering 118, 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 M101, 102, 103, 104, 105, 106, 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 103, 110A, 110B, 113A, 113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, C119A, 121, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 135, 136, 146, 170A, 170B, Physics 110A, 110B, 112, M122, 131, 132. Other relevant courses from related disciplines may be substituted with prior approval of the department. At least five courses approved for the minor must be upper-division. One course may be taken on a Passed/Not Passed basis.

For the conservation biology minor, Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses from 100L, 101, 103, 106, 109, 109L, 111, 112, 114A, 114B, C119A, C119B, 122, M127, M129, M131, 142, 151A, 152, 153, 154, 155, 156, 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, M121, M125, M126, M131, M133, M134, M150, M153, 157, C159, 160, M161, 162, 163, M164, 166, M167, 186 are required.

For the geographic/environmental studies minor, three courses from Geography M102, M103, 109, M118, M125, M126, M127, 130, M131, 133, 136, 138, 139B, 139C, and any two additional upper-division geography courses (except those from the preceding list and courses 194 through 199) are required.

Honors Program
The honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis or research project. To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division coursework in the major and an overall GPA of 3.0 or better, (3) complete at least 8 units of Environment 138 taken over at least two terms, and (4) produce a completed satisfactory honors thesis. The honors thesis or research project is in addition to the requirement of the completed practicum in environmental science project. Contact the student affairs officer for more information.

Policies
Preparation for the Major
Each course applied toward requirements for preparation for the major must be passed with a grade of C– or better. Students receiving a grade below C– in two courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major
Each course applied toward requirements for the major, except Environment 185A, must be taken for a letter grade. Students must maintain an overall grade-point average of 2.0 (C) or better in all courses applied toward the major.

Undergraduate Minor
Environmental Systems and Society Minor
The Environmental Systems and Society minor is designed for students who wish to augment their major program of study with courses addressing the relationships between environmental science and associated social and political issues. The minor seeks to impart a deeper understanding of environmental systems related to air, land, and water resources, providing a basis for sound professional decision making.

Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average) and file a petition at the Institute of the Environment and Sustainability, 300 La Kretz Hall, 310-206-9193.

The Minor
Required Lower-Division Courses (8 units): At least two courses from Astronomy 3, Atmospheric and Oceanic Sciences 1, 2, 2, 3, Earth, Planetary, and Space Sciences 1, 15, 16, 20, Ecology and Evolutionary Biology 10, 25, Environmental M1A, M1B, 10, 12, 25, M30, M30SL Geography 1, 2, 5.

Required Upper-Division Courses (20 units): At least five courses from Environment M111, M121, M125, M126, M131, 133, 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 adviser at the institute before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors
Doctor of Environmental Science and Engineering
The Environmental Science and Engineering (DEnv) professional doctorate program was founded in 1973 by Nobel laureate Dr. Willard Libby, who perceived a need to train environmental scientists, engineers, and policy makers in a more interdisciplinary manner than is afforded by traditional PhD programs. The program is designed with an appropriate balance of breadth and specific skills, based on a strong master’s-level foundation in a science or engineering discipline. The curriculum consists of formal coursework across a full spectrum of relevant physical, biological, social, and engineering disciplines, as well as interdisciplinary research training and an off-campus residency where students complete their dissertation embedded in an agency, business, or non-profit organization. UCLA remains unique in the country in awarding the Doctor of Environmental Science and Engineering degree.

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

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. (6-6-6) (Same as Clusters M1A-M1B-M1CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for fair, sustainable, and healthy food production, food security, and access.
Focus on human impacts on Earth's biological and physical systems, including how food production and consumption contributes to, and is impacted by, global problems, including climate change, pollution, and overpopulation. Laboratory exercises included in discussions. M102. Special Topics, Seminar, three hours. Enforced requisite: course M18B. Examination of specialized environmental and sustainability topics as they relate to food, including air, water, biodiversity, climate change, food security, and health. Satisfies Writing II requirement.

10. Introduction to Environmental Science. (4) (Formerly numbered M10.) Lecture, three hours; laboratory, two hours. Undergraduate students are introduced to environmental science as discipline and as a way of thinking. Discussion of critical environmental issues at local and global scales. Fundamentals of physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

12. Sustainability and Environment. (4) Lecture, three hours; discussion, one hour. Introduction to sustainability 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 methods 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, urban ecologies, postcolonial ecologies, environmental justice, and overpopulation. Laboratory exercises included in discussions. 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.

25. Good Food for Everyone: Health, Sustainability, and Culture. (5) (Same as English M101.) Lecture, three hours; discussion, one hour. Good food is healthy, sustainably produced, and culturally meaningful. Introduction to basic concepts and history of food systems, food science and nutrition, fair and sustainable food production, natural resources and environmental issues including climate change and biodiversity, agriculture and food policy and 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 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 English M30SL.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Course satisfies completion 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. Fieldwork component includes meaningful work with off-campus agency/agencies selected by instructor. 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 UC for the duration of the contract. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M102. Soils and Environment. (4) (Formerly numbered M127.) (Same as Ecology and Evolutionary Biology M127 and Geography M102.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of soil; understanding of soil and environmental problems; biologically active processes involved in soil formation; soil as a vehicle for disease; water use, 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 M102L.) Laboratory, one hour; field excursions. Corequisite: course M102. Investigations and demonstrations supporting material in course M102, including calculating soil porosity, analyzing soil structure, and measuring soil chemical properties. Letter grading.

M103. Soil and Water Conservation. (4) (Formerly numbered M114.) (Same as Geography M103.) Lecture, three hours; discussion, one hour. Enforced requisite: one course from course 10, Geography 1, 2, 3, 4, or 5, Life Sciences 78. 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 soil conservation, 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; discussion, one hour. Examination of history, systems, and processes 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.

M111E. Environmental Change. (4) (Formerly numbered M134.) Lecture, three hours. Exploration of issues in broad context, in relation to changing nature of modern environmentalism. Introduction to environmental problems, role of science in informing policy and regulation, evolution of environmental regulation, different types of regulatory approaches, and creative approaches to environmental decision making. Includes California Environmental Quality Act (CEQA), Propnosition 65, California’s long-standing leadership role in air pollution control, and state’s pioneering efforts in regulating greenhouse gas emissions. P/NP or letter grading.

M147. Critical Analysis of Strategies toward Environmental Justice. (4) (Same as Community Engagement and Social Change M147.) Lecture, three hours. Exploration of and engagement in critical analyses of strategies toward environmental justice including environmental education, civic ecology, environmental stewardship, public policy, citizen science, community engagement, community planning, and urban tree canopy. Strategies are interwoven across four interconnected modules: community engagement, community planning, and urban tree canopy.

104. 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, and legislative approaches to environmental decision making. Includes California Environmental Quality Act (CEQA), Proposition 65, California’s long-standing leadership role in air pollution control, and state’s pioneering efforts in regulating greenhouse gas emissions. P/NP or letter grading.

134. Environmental Economics with Data Analysis. (4) (Formerly numbered M134.) Lecture, three hours. Discussion, one hour. Examination of challenges of balancing environmental protection with wants and needs of people in economy. Focus on how to design efficient public policies that protect the environment while ensuring that private parties are willing to pay to quantitatively measure or put a value on environmental assets and environmental benefits. P/NP or letter grading.

135. Environmental Sociology. (4) (Same as Sociology M135 and Sociology M115.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations between social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.

136. Human Impact on Biophysical Environment. (4) (Formerly numbered M136.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.

140. Environmental Journalistic, Science Communications, and New Media. (4) Lecture, three hours. Introduction to environmental journalism, science communications, and new media, including weekly guest lectures and student projects. Emphasis on the practical application of environmental 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 approaches to environmental decision making, includes California Environmental Quality Act (CEQA), Proposition 65, California’s long-standing leadership role in air pollution control, and state’s pioneering efforts in regulating greenhouse gas emissions. P/NP or letter grading.

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gaging public in newspapers, television, radio, environmental science, policy, public understanding, and individual decision making. Production by benders 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 Development M153.) 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 environmental quality, energy efficiency, and appropriate use of resources, including materials, water, and land. Letter grading.

157. Energy, Environment, and Development. (4) Lecture, three hours. Introduction to basic energy concepts and examination of role of various energy sources, energy conversion technologies, and energy policies and life analysis. Implications of current patterns of energy production and consumption for future economic and environmental well-being. Integration of concepts and methods from life sciences, engineering, environmental science, economics, and public policy. Basic quantitative skills provided to analyze and critique technical, economic, and policy choices in light of balancing economic growth and environmental sustainability. P/NP or letter grading.

C159. Life-Cycle Assessment. (4) (Formerly numbered 159.) Lecture, three hours. Requisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B (or 31A and 31B). Public discourse about current patterns of production and consumption of energy, and goods and services more broadly, suggest such patterns are environmentally unsustainable. Introduction to basic concept of life-cycle assessment (LCA), including analytical frameworks and qualitative techniques for systematically and holistically evaluating environmental trade-offs presented by different alternatives. Focus on methodology of LCA to compute various material inputs and environmental releases from all activities associated with life cycle (i.e., raw material extraction, manufacturing, use, and disposal) of products or services. Discussion of strengths and limitations of LCA as tool for decision making. Students perform life-cycle analysis of one technology, product, or service of their choice. Limited to students who are currently scheduled with course C259. P/NP or letter grading.

160. Topics in Environmental Economics and Policy. (4) Requisite: Statistics 13 or 13A. Seminar, 90 minutes; discussion, one hour. Limited to undergraduates. Study of current environmental and resource policy, including participation in weekly colloquium 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 using a variety of R programming techniques and tools. Emphasis on understanding the R language and the R environment, and learning how to use R for data analysis. This programming language shares many similarities to other statistical programs, providing students with valuable labor-market skills. Letter grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Enrolled requisite: Statistics 12 or 13. Limited to Environmental Science majors who have completed 40 or more units of preparation for this course. Emphasis on developing research skills and working as professionals in this field. Work may involve site investigations, original data collection and analysis, and preparation of reports to government agencies, businesses, and other institutions in everyday life.

M187. Careers in Earth System, Environment, and Space Sciences. (1) (Same as Atmospheric and Oceanic Sciences M187 and Earth, Planetary, and Space Sciences M187.) Seminar, one hour. Examination of central role of science in understanding and addressing grand challenges in climate, earth and environment, and space exploration through seminars given by scientists, engineers, managers, and entrepreneurs from national laboratories and industry. Open to students who have completed 12 or more units of upper-division courses toward environmental or international settings. Emphasis on complex phenomenon, multidisciplinary and multi-approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

180B. Practicum in Environmental Science. (5) Lecture, three hours; discussion, one hour (when scheduled). Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual local sustainability practices and policies in diverse regional or international settings. Emphasis on comparing role of local and regional culture, geography, economic climate, and governmental policies on sustainability awareness and practices. Use of observations, interviews, and unobtrusive measures to document and analyze role and influence of local/global cultural practices, and political decisions of individuals, small businesses, and other institutions in everyday life. Letter grading.

188A-188B. 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 members. May be repeated for credit with topic change. P/NP or letter grading.

188A. Special Courses in Environment. (1) Tutorial, to be arranged. Enrolled requisite: Honors College USIE 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, complete preparation for presentation, and development of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Special Courses in Environment. (1) Tutorial, to be arranged. Enrolled requisite: 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. Special Courses in Environment. (1) Tutorial, to be arranged. Enrolled requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalise course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.
uly 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 course instructor explores 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 Compos 192M. Seminar, two hours. Training and supervised placement of 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.

193. Journal Club Seminars: Environment. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature of field. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Environmental Science. (2 to 4) Tutorial, four hours. Limited to junior/senior majors. Internship in supervised setting in community agency or business related to environmental science and/or sustainability. Students meet on regular basis with faculty supervisor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required; consult 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 graded. Preparation: consent of instructor. 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 junior/senior majors. Supervised individual research or investigation under guidance of faculty mentor. Progress report must be submitted to faculty mentor at end of term. Culuminating 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) Seminar, four hours. Course 200A is requisite to 200B. Examination of interdisciplinary case studies that approach problems in environment and sustainability as issues with scientific, social, economic, political, philosophical, ethical, historical, cultural, and policy dimensions. Case studies illustrate use of qualitative and quantitative methods of analysis drawn from natural sciences, social sciences, and humanities. Emphasis on conceptual frameworks for defining environmental problems and implementation of research results in solving real-world problems. S/U or letter grading.

M235. Modern Environmental Statistics. (4) (Same as Statistics M235) Seminar, three hours. Limited to graduate students. Prerequisites: calculus, linear algebra. Focus on practical understanding and application of statistical tools for environmental data sets. Topics include brief overview of concepts in probability, distributions, hypothesis testing, developing and assessing regression models, multivariate 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, and law with experts in industry, academia, and government. Career development activities including presentation skills, conflict resolution, business and entrepreneurship. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U grading.

241. Food, Energy, and Water Systems Management in Urban Systems Field Laboratory. (4) Fieldwork, four hours. Designed for students in science, technology, engineering, and mathematics (STEM) field interested in nexus of food, energy, and water systems (FEWS) management and sustainability. Weekly visits to facility related to FEWS, and discussion of issues of science, technology, policy, economic, and historical perspectives. Course part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

M242. Science Communications and Environmental Media. (4) Formerly numbered 242. (Same as English M242) Seminar, three hours. Designed for graduate students in science, technology, policy, economics, and law. Course part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

250. Tools for Sustainability Assessment. (4) Lecture, three hours. Recommended preparation: introductory course in industrial ecology, ecological economics, environmental economics, business and management, or public policy analysis. Public discourse about implications of current patterns of production and consumption of energy and various goods and services suggests such patterns are unsustainable. What is meant by sustainability and how is it quantified? Focus on concepts and tools to assess sustainability, at micro-level of individual, products, or firms using various techniques, including lifecycle assessment, input-output analysis, and cost-benefit analysis. Exploration of sustainability at macro-level for one entire economy or nation. Discussion of usefulness and limitations of various metrics as guide for public and private decision making. S/U or letter grading.

C259. Life-Cycle Assessment. (4) Lecture, three hours. Prerequisites: Math 31A and 3C, or Math 31B, 3A, and 3B. Public discourse about current patterns of production and consumption of energy, and goods and services more broadly, suggest such patterns are environmentally and economically unsustainable. Introduction to basic concept of life-cycle assessment (LCA), including analytical frameworks and quantitative techniques for systematically and holistically evaluating environmental trade-offs presented by different alternatives. Focus on methodology of LCA to compute various material inputs and environmental impacts of all activities associated with life cycle (i.e., raw material extraction, processing, end use, and disposal) of products or services. Discussion of strengths and limitations of LCA as tool for decision making for performing lifecycle analysis of one technology, product, or service of their choice. Concurrently scheduled with course C159. S/U or letter grading.

260. Information, Technology, Business, and Society. (4) Seminar, three hours. Interdisciplinary research seminar to bring social sciences methods to latest technology developments to design effective information-based solutions to social problems. Topics include selection and framing of research questions; developing measurements, designing appropriate methods (e.g., surveys, experiments, using available data), 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 science, technology, engineering, and public health, natural and social sciences, and others. Creation of environment for academically based discussions on various sustainability-related themes, commonly in context of recent or even projected phenomena 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. Preparation: consent of instructor. Students make 3-4 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. (4) Seminars, 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 grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employed as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Environmental Science and Engineering Problems Course. (8) Seminar, eight hours. Primarily designed for environmental science and engineering doctoral students. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to ten UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. Limited to students who have advanced to doctoral candidacy. May not be applied toward degree requirements. May be repeated for credit. S/U grading.

Environment and Sustainability, Institute of the /451
ENVIRONMENTAL HEALTH SCIENCES

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Shane S. Que Hee, PhD, Interim Chair

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Jared M. Diamond, PhD
Michael L. Jenrett, PhD
Jian Li, PhD
Timothy Malloy, JD (Frank G. Wells Endowed Professor of Environmental Law)
André E. Nel, MBChB, PhD
Shane S. Que Hee, PhD
Beate R. Ritz, MD, PhD
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Linda Rosenstock, MD, MPH
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Yifang Zhu, PhD

Professors Emeriti
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Climis A. Davos, PhD
Curlis D. Eckhert, PhD
John R. Froines, PhD
Richard J. Jackson, MD, MPH
Niklas Krause, MD, MPH, PhD
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Arthur M. Winer, PhD

Associate Professors
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Kirsten Schwarz, PhD
Candace Su-Jung Tsai, ScD
Jane L. Valentine, PhD

Assistant Professors
Brian L. Cole, DrPH, in Residence
Lara J. Cushing, MPH, PhD (Jonathan and Karin Fielding Presidential Professor of Health Equity)
Miriam E. Marlier, PhD
R. Jisung Park, PhD

Adjunct Professors
Pouran D. Faghi, MD
Thomas H. Hatfield, DrPH, REHS
Daniel Z. Uslan, MD

Adjunct Associate Professor
Kevin Y. Njabo, PhD

Adjunct Assistant Professors
Hamid Arabzadeh, CIH
Angelo J. Bellomo, MS
Pablo Cicero-Fernández, PhD
Nicole M. Green, PhD
Tao Huai, PhD

Overview
The Department of Environmental Health Sciences focuses its research and educational activities on the protection of human health from biological, chemical, mechanical, and physical hazards in the environment. Its graduates are scientists, professionals, and leaders capable of identifying and measuring stressors of environmental concern; evaluating the health, environmental, and all other impacts of such stressors; developing means for their effective management; and evaluating alternative policies directed at improving and protecting health and the environment. Such training is accomplished through several degree programs that offer specialized study in selected academic areas of environmental health sciences such as air pollution, environmental chemistry, 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

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 course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

90HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics 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

100. Introduction to Environmental Health. (4) Lecture; three hours; discussion, one hour. Preparation: one course each in chemistry and biology. Introduction to environmental health, including coverage of sanitary principles and chronic and acute health effects of environmental contaminants. P/NP or letter grading.

101. Fundamentals of Chemistry for Environmental Health. (3) Lecture; three hours; discussion, one hour. Guided tutorial on fundamental chemical concepts that are important for public health students who either do not have strong background in chemistry or who have not recently taken chemistry class and want to refresh their knowledge. Discussion of examples relevant to environmental health more broadly in each topic area and used to illustrate why understanding fundamental chemical concepts are important. Interactive study with focus on core chemical concepts. Recommended to be taken before or concurrently with introductory courses. P/NP or letter grading.

C125. 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 smogs, 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. Limited to senior undergraduate and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing and enforcing each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-executing performance standards and permitting), market-based regulation (such as emissions trading), remedies, and emerging regulatory approaches such as management-based regulation and alternatives assessment. Issues of compliance and enforcement. Concurrently scheduled with course C235. P/NP or letter grading.

C140. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organ systems. Concurrently scheduled with course C240. 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 contract required. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Design to provide upper-division lecture course experience. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. May be repeated for credit. Individual contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Environmental Health Sciences. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible and quantitative approaches for examination of topics to provide skills that are critical to perform research. 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: course C152D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one each year of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of biotoxins and particulate problems. Concurrently scheduled with course C252D. P/NP or letter grading.

C157. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisite: course C140. Designed to introduce students to the scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of scientific and regulatory standards. Concurrently scheduled with course C257. P/NP or letter grading.


M166L. Environmental Microbiology Laboratory. (2) (Same as Civil Engineering M166L) Lecture, one hour; laboratory, two hours; outside study, two hours. Required: course M166. Microbial cell and its metabolic capabilities, microbial genetics and its potential, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, enzyme analysis of microbes, public health microbiology, pathogen control. Letter grading.

M166CL. Environmental Microbiology Laboratory. (2) Lecture, four hours; discussion, two hours; outside study, six hours. Required: course C152D. Microbial cell and its metabolic capabilities, microbial genetics and its potential, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, enzyme analysis of microbes, public health microbiology, pathogen control. Letter grading.

C200A. Foundations of Environmental Health Sciences. (4) Lecture, four hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students interested in professional, graduate, or PhD degrees. Exploration of many topics relevant to science of environmental and occupational health (e.g., climate change, ecology, epidemiology, and toxicology) by introducing scientific basis from ecological perspective and describing how topics relate to health on a biochemical and molecular basis. Emphasis on scientific aspects of field, with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C185A. Letter grading.

C200B. Foundations of Environmental Health Sciences. (4) 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 thoughtful processes to effectively analyze environmental health problems and development, implementation, and leading of actions to address these problems. Supplements content presented in Public Health 200A and 200B and Environment 100. Concurrently scheduled with course C200D. Letter grading.

C200C. Foundations of Environmental Health Sciences. (6) Lecture, four hours; group project, two hours. Enforced requisite: course C200A or C200B. Multidisciplinary 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 toxicological consequences, the recognition of hazards presented by building and community designs that fail to recognize human health. Land use and built environment decisions impact every age group including social and communicable disease 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 requisite: courses C200A, C200B, 200C. Description of 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 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 microbiology. Recommended requisite: Microbiology 101 or 102. Designed for environmental health sciences graduate students and students in UCLA Biosafety Training Program. In-
terative seminar with focus on critical concepts in and practical aspects of biosafety, biosecurity, risk as-
seessment, and risk management that are needed for individuals wishing to serve as interns in UCLA bio-
safety program and/or become biosafety profes-
sionals. S/U or letter grading.

214. Children’s Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year each of chemistry and biology. Examination of how environmental exposures to chemical, physical, and biological hazards in the critical period of human development (from fertilization to adulthood) cause pathophysi-
ological perturbations 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 and underlying principles, and opportunities to develop and apply HIA skills in work with public agencies and community-based organiza-
tions. Focus on problem solving around case-study HIAAs and student experiences 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 envi-
ronmental change and human health. Human-caused impacts on natural systems that have subsequent ef-
effects on human health include changes in land use, food systems, biodiversity, air pollution, and water availability. Understanding the risk this latent planetary health requires synthesizing information from diverse aca-
demic disciplines across spatial and temporal scales, including atmospheric and climate science, ecology, epidemiology, and policy. Students from environ-
mental health sciences and related fields learn how to interpret studies from scientific literature that discuss various aspects of planetary health, from drivers of en-
vironment and health outcomes. Students will be expected to become more proficient consumers and producers of social
statistics, basic undergraduate microeconomics. In nomics and Policy. (4) (Same as Public Policy M217.)

M217. Graduate Seminar in Environmental Eco-
nomics and Policy. (4) (Same as Public Policy M217.) Seminar, four hours. Preparation: undergraduate-level statistics, basic undergraduate microeconomics. In-
troduction to applied scholarship in environmental economics. Enabling students to become more proficient consumers and producers of social science research that explores questions of environ-
mental policy broadly construed. Themes and Topics include health and economic impacts of cli-
mate change, adaptation to climate change, efficient and equitable design of environmental policies (e.g., cap and trade, auctioning allowances). Development of de-
tailed empirical research proposals and short presenta-
tion. Letter grading.

218. Science Communication: Art and Practice of Science Storytelling. (4) Lecture, three hours. Students from environmental health sciences focus on communicating with diverse audiences through visual communication. Study of science of science communic-

219. Environmental Health Disparities. (4) Seminar, three hours. Designed for advanced graduate stu-
dents with a foundational coursework in environmental health sciences. Exploration of dis-
proportionate health burden experienced by low in-
dents who have completed foundational coursework
 in occupational/Environmental Health. (4) Letter grading.

M241. Advanced Concepts in Gene-Environment Interactions. (4) (Same as Molecular Toxicology M247.) Lecture, three hours; discussion, one hour. Comprehensive and practical examination of emerging science of gene-environment interaction. Exploration of role of primary contributors to this field, including role of metabolic pathways in modifying environmental responses and importance of environmental influ-
ences in human disease. Exploration of selected hot topics in field, such as epigenetic impacts of epigenetics and of microbiome. S/U or letter grading.

C252D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic 
understanding of applications of occupational environ-
mental health, including properties, behavior, sam-
pling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C152E, C252E, 252F.

252E. Identification and Measurement of Gases and Vapors. (4) Lecture, three hours; discussion, one hour; outside study, two hours. Preparation: one year each of chemistry, physics, and calculus. Theoretical and practical aspects of industrial hygiene sampling and measurement of gases and vapors. Letter grading.

252F. Industrial Hygiene Measurements Laboratory- 
atory Measurements Laboratory. (4) Laboratory, four hours. Concurrent courses C252D, 252E, 252F. Limited to industrial hygiene majors. Laboratory methods for sampling, measurement, and analysis of gases, vapors, and aerosols found in occupa-
tional/Environmental Health. (4) Letter grading.

252G. Industrial and Environmental Hygiene As-
essment. (4) Lecture, one hour; discussion, two hours; laboratory, two hours; outside study, four hours. Requisites: courses C250A, C250B, C252D, 252F. Environmental and industrial hygiene sampling strategies and assessment via walk-through surveys, lectures, group discussion, actual field meas-
urement, laboratory calibrations, and analyses and reports, with emphasis on technical, physical, and er-
onomic hazards. Letter grading.

253. Physical Agents in Work Environment. (2 to 4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Physics, measurement methods, health effects, and control methods for radiation (ion-
izing and nonionizing), noise, and thermal stress in workplace environment. S/U or letter grading.

255. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisite: course C252D. Principles and applications of control technology to in-
dustrial environments, including general and local ex-
haust, air cleaning, ventilation, air cleanser, and respira-
tory protection. S/U or letter grading.

256. Biological and Health Surveillance Monitoring in Occupational/Environmental Health. (4) Lecture, three hours; discussion, one hour; assignments, three hours. Concepts and applications of biological moni-
toring and health surveillance to assess occupational and environmental exposures to organic and inorganic chemicals and physical factors. Letter grading.

257. Risk Assessment, and Standard Setting. (4) Seminar, four hours. Requisite: course C240. De-
signed to provide students with opportunity to review scientific basis for association of selected occupa-
tional and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of science and regu-

258. Identification and Analysis of Hazardous Wastes. (4) Lecture, three hours; discussion, one hour; laboratory, one hour; one field trip. Requisite: course 252E. Designed to define, identify, label, and quantitate hazardous waste to be treated, stored, or be protected. Provides critical understanding of all an-
alytical aspects of hazardous wastes, health aspects, and regulation and practice of handling hazardous wastes. Letter grading.

259A. Occupational Safety and Ergonomics. (4) Lecture, four hours. Overview of most frequent and severe occupational injuries and illnesses, their distri-
bution, causes, analysis methods, and control ap-

proaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.

259B. Workplace Safety. (2) Lecture, two hours. Introduction to broad range of topics in workplace safety through study of safety hazards, their classification, metrics, control philosophy, and control methods. Specific topics include traditional safety rubrics, such as fall hazards, machine safety, and fire hazards. Introduction to concepts of safety culture and philosophy. Review and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.

M260. Occupational Epidemiology. (4) (Same as Epidemiology M261.) Lecture, three hours. Requisites: Epidemiology 100; for Epidemiology majors, Epidemiology 200A, 200B, 200C. Methodological considerations, approaches, and limitations in epidemiological studies of occupational groups and environments. 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 in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel training 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. 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 form and obtain training documentation on form available from Student Affairs Office. May not be ap- plied 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. Requisites: courses C200A, C200B, Chemistry 29A, 29AL. Instrumental methods for laboratory and field applications to assess quality 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 Sci- ences. (4) Lecture, four hours; discussion, two hours; other, two hours. Preparation: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

410B. Instrumental Methods Laboratory in Envi- ronmental 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 environ- mental 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 Communi- cation 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 per- forming literature searches, designing research study, proposing specific aims, forming testable hypotheses, completing Institutional Review Board (IRB) applica- tion, choosing data collection methods, data manage- ment, analysis, and interpretation; and writing re- search proposal. Students complete pilot research proposal for submission for funding. S/U or letter grading.

414B. Research Methods and Effective Communi- cation 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 per- forming literature searches, designing research study, proposing specific aims, forming testable hypotheses, completing Institutional Review Board (IRB) applica- tion, choosing data collection methods, data manage- ment, analysis, and interpretation; and writing scien- tific paper and presenting research results. Students complete manuscript for submission to peer-reviewed journal. S/U or letter grading.

454. Health Hazards of Industrial Processes. (4) Lecture, two hours; field trips, four hours. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.


M471. Improving Worker Health: Social Move- ments, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM470 and Urban Planning M470.) Lecture, three hours; field- work, 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 inter- ventions. 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.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervi- sion. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be re- peated for credit. S/U or letter grading.

597. 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 require- ment. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 10) Tuto- rial, four hours. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Epidemiology / 455

Epidemiology

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Faculty Roster

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Professors Emeriti

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Roger Detels, MD, MS
Ralph R. Freidichs, DVM, DrPH
Sander Greenland, DrPH, MA, MS
Frank J. Sorvillo, MPH, PhD

Epidemiology
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 special distribution of disease, examination of trends, and intervals between exposure to causative factors and onset of disease. The scope of the field extends from study of the patterns of disease to the causes of disease with the goal of the control or prevention of disease. What distinguishes epidemiology from other clinical sciences is the focus on health problems in populations rather than in individuals, with the focus on public health.

Epidemiology is a young field with constantly expanding boundaries. The range of activities includes identifying determinants of population health, investigation and control of disease outbreaks, study of environmental and industrial hazards, evaluation of preventive or curative programs or treatments, and evaluation of the effectiveness and efficiency of intervention or control strategies. Many tools of epidemiology are shared with other fields such as microbiology, immunology, medicine, statistics, demography, and medical geography.

There is a growing core of epidemiologic methodology that includes the principles of study design and conduct, and statistical methods. Epidemiologic tools have become relevant for many other fields that study groups of people, e.g., genetics and epigenetics, global health, pharmacology, medicine, and many others. Epidemiologists work in many settings, including academia, international health agencies, state and local health departments, federal government agencies and health programs, health maintenance organizations, and numerous research projects privately and publicly sponsored.

Mission

The objectives of the Department of Epidemiology fall into three broad categories—research, teaching, and community service.

Graduate Major

Epidemiology MS, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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. Fiat Lux Freshman Seminars. (1 Seminar) 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. 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 epide miologic studies; identifying and accessing key sources of information for epidemiologic assessment using epidemiologic methods and calculating basic epidemiologic measures for operational purposes; and communicating basic principles of epidemiology such as definitions of populations, sources of bias, causation 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 College 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.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to develop USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Epidemiology. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Methods I: Basic Concepts and Study Designs. (6) Lecture, three hours; discussion, one hour. Introduction of basic concepts and methods in epidemiology with emphasis on measuring disease occurrence, study design, and assessing causal relationships. Letter grading.

200B. Methods II: Prediction and Validity. (6) Lecture, six hours; discussion, four hours. Enforced requisite: course 200A and Biostatistics 100A, or Public Health 200A and 200B. Corequisite: Biostatistics 100B. Introduction to basic concepts, principles, and methods of chronic and infectious disease epidemiology. Letter grading.

200C. Methods III: Analysis. (6) Lecture, four hours; laboratory, two 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.

200D. Topics in Theoretical Epidemiology. (2) Formerly numbered 203A. (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. Preparation: course 200C or 401, or Biostatistics 200A or 200B or 406, and course M403 or 407A or Biostatistics 203A. Provides students with necessary tools to evaluate effectiveness or impact of public health interventions. Study designs include non-randomized, quasi-experiments, and natural experiments. Covers both theoretical concepts as well as practical tools that encompass methods borrowed from related fields including social epidemiology, health policy, econometrics, and evaluation research. These methods include instrumental variable, difference-in-difference, synthetic control, regression discontinuity, and propensity score matching. S/U or letter grading.

206. Systems Science Modeling and Simulation in Epidemiology. (4) Lecture, three hours. Preparation: 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, including 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 referred to as systems epidemiology or computational epidemiology. Multidisciplinary fields that require such techniques from computer science, econometrics, operations research, engineering, and epidemiology to better understand disease mechanisms or evaluate intervention effectiveness. S/U or letter grading.

207. Reproducibility in Epidemiologic Research. (4) Lecture, three hours. Requisites: courses 200A, 401 (or Biostatistics 100B or 200A and 200B), M403. Introduction to concept of reproducibility in epidemiologic research. Concepts are exposed to tools for adopting practices to enhance reproducibility in their own research. Letter grading.

M211. Statistical Methods for Epidemiology. (4) (Same as Biostatistics M218.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: courses 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in courses 200B and 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.


215. Systematic Review and Meta-Analysis. (2) Lecture, two hours. Preparation: courses 200A or 200B, and Biostatistics 100A, or Public Health 200A and 200B. Overview and practical understanding of systematic reviews and meta-analysis of clinical trials and observational studies. Students learn how to conduct systematic literature search, assess quality of selected studies, identify paradigms of 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. Preparation: 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 error and estimation bias, and methods of generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory. S/U or letter grading.

217. Social Networks and Public Health. (4) Lecture, four hours. Preparation: course 100 or 200A, or Public Health 200A and 200B. Social networks of principle of social network research, social network analysis, and social network intervention; special relation to public health and health behavior. Coding examples are provided in R (mainly R graph 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. Preparation: courses 200B and 200C, or Community Health Sciences 211A and 211B. Design, testing, field use, and administration of data collection instruments, with particular emphasis on questionsnaires. Letter grading.

219. Strategies for Increasing Sensitivity and Validity of Study Results. (4) Lecture, three hours. Preparation: course 100 or Public Health 200A. Discussion of strategies for increasing sensitivity and validity of epidemiologic studies. Covers issues that led to methods development, need for methods, and literature of articles themselves; subsequent studies that have used suggested approaches; and any modification of methods that have been proposed. Students are expected to have basic training on epidemiologic study designs and methods. S/U or letter grading.


221. Emerging Infectious Diseases. (4) Lecture, three hours. Preparation: course 220 or consent of instructor. Emerging infectious diseases (EIDs) are infections that have recently appeared within a population or those that are known to rapidly increase in frequency or threaten to increase in future. Overview of important emerging and re-emerging infectious diseases globally. Addresses factors associated with disease emergence, infection research methods, preparedness, disease surveillance, outbreak investigation, and response to EIDs with global perspective. Letter grading.

222. Global Health Measurement for Biologic Emergencies. (4) (Same as Ecology and Evolutionary Biology M226.) Lecture, four hours. Preparation: course 220. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.


228. HIV and AIDS. (4) Lecture, two hours. Preparation: courses 100 or 200A, or Biostatistics 100A, or Public Health 200A and 200B. Review of epidemiologic, biologic, psychological, and clinical characteristics of AIDS and HIV-1 infection. Discussion of intervention and prevention strategies. S/U or letter grading.

230. Epidemiology of Sexually Transmitted Diseases. (4) Lecture, three hours. Preparation: course 100 or 200A, or Public Health 200A and 200B. Sexually transmitted diseases; medical/biological aspects, epidemiology and control in developed and developing countries. S/U or letter grading.

231. Principles of Control of Infectious Diseases. (4) Lecture, three hours. Comprehensive study of tools for control of infectious diseases and application of these tools in public health programs to achieve epidemiologic impact on disease reduction, elimination, or prevention. S/U or letter grading.

232. Methods in Research ofMarginalized and Hidden Populations. (2) Lecture, two hours. Preparation: 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 to the population, 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, magnitude of risk factors, strategies for prevention, lipoprotein metabolism, and epidemiology of diabetes, hypertension, and chronic lung disease. Letter grading.

241. Epidemiology of Obesity and Diabetes. (4) Lecture, three hours. Preparation: course 100 or 200A or Public Health 200A. Overview of epidemiology of obesity and diabetes. Students are exposed to most important research in three global regions separated by geographic and regional epidemiom of obesity and diabetes, risk factors and complications, classifications and assessments, prevention and management, as well as methodology issues related to diabetes research. Multidisciplinary study designs and methods that have been proposed. Students are expected to have basic training on epidemiologic study designs and methods. S/U or letter grading.


245. Lifestyle Intervention for Noncommunicable Chronic Diseases. (2) Lecture, two hours. Preparation: courses 100, Public Health 200A, 200B. Designed to teach students how to perform large scale lifestyle intervention trials and data analysis to lifestyle interventions for purposes of preventing onset and progression of disease and improve quality of life. 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. Preparation: course 100 or 200A, or Biostatistics 100A, or Public Health 200A and 200B; and Bio-


268. Introduction to Pharmacoepidemiology. (2) Lecture, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Survey of contemporary roles of pharmacoepidemiology, with particular focus on methodologic research control concepts. May be repeated for credit. S/U or letter grading.

270. Behavioral Epidemiology. (4) Lecture, four hours. Requisite: course 100, or 200A, or Public Health 200A and 200B. Introductory concepts of human behavior and mental health, with emphasis on biologic, psychological, and sociocultural factors, and their interrelationship. S/U or letter grading.

271. Psychiatric Epidemiology. (4) Lecture, three hours. Requisites: Biostatistics 100B, Public Health 200A and 200B. Psychomathematical model of psychiatric epidemio- logical studies of mental and emotional disorders, and major causes and factors that influence their occurrence and distribution. Emphasis on fieldwork in epidemiology of mental health disorders and probable causes and factors that influence their occurrence, trajectory, and outcome. Provides students with knowledge and skills necessary to conduct psychometric research projects. S/U or letter grading.

272. Social Epidemiology. (4) (Same as Community Health Sciences M272.) Lecture, two hours; discussion, one hour. Requisite: course 100 or Public Health 200A and 200B. Relationship between social, cultural, and behavioral factors in etiology of mental health disorders, and occurrence and distribution of morbidity and mor- tality. Emphasis on public health and ethical implications of social epidemiology. 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 200D. Emphasis on responsible conduct of research in global health, with particular focus on issues such as research ethics, the ethical conduct of research, and the responsible conduct of research. S/U or letter grading.


275. Methodologic Issues in Reproductive Epidemiology. (2) Seminar, two hours. General discussion of methodologic issues in epidemiologic analyses of reproductive outcomes, including fertility, low birth weight, premature birth, defects, pregnancy loss, and perinatal mortality. Approaches to study design and analysis are discussed. S/U or letter grading.

276. Global Health and Tropical Medicine. (4) Lecture, four hours. Introduction to tropical diseases and global health. How humanitarian health issues, material-child health, research in tropics, World Health Organizations, and political/medical constraints all are related with respect to health on worldwide scale. S/U or letter grading.

277. Introduction to Pharmacoeconomics. (2) Lecture, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Explores current issues of pharmacoeconomics in drug development and public health, with historical background of its evolution and projections of future prospects. S/U or letter grading.

278. Substance Use Epidemiology. (4) Lecture, three hours. Requisites: course 200A, and Biostatistics 100A or 100B or equivalent. Introduction to epidemiology of substance use and substance use disorders within public health paradigm. Review of drug policy in U.S. and analysis of drug use and related problems, examination of intersection of substance use and mental health disorders, and examination of role of epidemiology in informing and evaluating interventions for substance use disorders, including health services and pharmacologic and nonpharmacologic treatments. S/U or letter grading.

404. Advanced SAS Techniques for Management and Analysis of Epidemiologic Data. (2) Lecture, three hours. Requisite: course M403 or 410. Hands-on experience with SAS 9.2/9.3, with focus on using SAS data and PROC steps efficiently to manage, clean, analyze, and tabulate tabular data sets to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. S/U or letter grading.
407A. Epidemiologic Research Using R. (2) Lecture, two hours; discussion, one hour. Requisite: course 100 or 200A, or Public Health 200A and 200B, or consent of instructor. Designed to broadly offer R coding experience, with emphasis on data management, visualization, and analysis. Introduction of new concepts each week through guided interactive tutorials with working examples. S/U or letter grading.

407B. Applied Epidemiologic Research Using R. (2) Lecture, two hours. Requisite: course 407A. Designed to broadly offer R coding experience, with emphasis on data management, visualization, and analysis. Introduction of new concepts 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 introduction, methods, and results part of submittable 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 use of Python programming 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 text-based health data. S/U or letter grading.

412. Public Health Surveillance. (2) Lecture, two hours. Requisite: course 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Overview of public health surveillance methodology, including (1) design, implementation, and evaluation of surveillance systems, (2) analysis and interpretation of surveillance data, and (3) application of surveillance methods 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. Approaches to developing effective written, oral, and visual presentations of epidemiologic research findings. Communication issues arising in conduct of research, including informed consent process. S/U or letter grading.

420. Field Trials of Health Interventions in Low-Resource Settings. (4) Lecture, four hours. Requisite: course 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Introduction to practical concepts and issues in conducting epidemiologic field research in developing countries, including formulating research questions, study site selection, ethical considerations, and logistics of data and specimen collection. S/U or letter grading.

495. Teacher Preparation in Epidemiology. (2) Seminar; two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate 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. No more than 6 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. S/U or letter grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward MPH and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

ETHNOMUSICOLOGY

Herb Alpert School of Music
2520 Schoenberg Music Building Box 951657
Los Angeles, CA 90095-1657

Ethnomusicology
310-825-8381
Roger W.H. Savage, DPhil, 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)
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. Newton, Jr.
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
Teresa Awe, BA
David M. Bragger
Paul J. De Castro, DMA
Jesús A. Guzmán
Rahul D. Neuman
Amir H. Pourjavady, PhD
Yuriko T. Shimoda, MA
Dipko Walujo Wimboprasetyo
Diane L. White-Clayton, PhD

Adjunct Professors
Amy R. Catlin, PhD
Abhiman Kaushal
Chi Li, BA
Maureen A. Russell, MLS, MA, CPhil
Tzvetanka T. Varimezova, BA

Michele A. Weir
Adjunct Associate Professors
Roberto Miranda
Ivan Varimezov, BA
I Nyoman Wenten, PhD
Adjunct Assistant Professors
Supeena Insee Adler, PhD
Farzad Amoozegar, PhD
Visiting Assistant Professor
Pejman Hadadi

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

Entry to the Major

Admission

Applicants are reviewed individually, based on a questionnaire, grade-point average, two letters of recommendation, test scores, a personal statement of purpose, and an on-campus interview/audition. Applicants who are unable to travel to UCLA have the option of a Skype interview/audition.

Requirements

Preparation for the Major

Required: Ethnomusicology M6A, M6B, M6C, with grades of C– or better; Music 20A, 20B, 20C, with grades of C or better; Music 20A, 20B, 20C, with grades of C or better; and 12 units of ethnomusicology world music performance organizations (courses 91A through 91Z), private instruction in music (course 92), and/or world music specializations (courses 68A through 68Z).

The Major

Required: Ethnomusicology 175 or 181, 183; 12 units from courses 161A through 161Z, 162, and/or 168A through 168Z; a minimum of eight upper-division ethnomusicology courses (32 to 36 units); and a capstone project in either (1) performance/composition, (2) public ethnomusicology, (3) scholarly research, or (4) other potential emphasis concepts in consultation with a faculty adviser.

Performance/Composition Capstone: Students must fulfill the capstone final project requirement (4 units) through a public recital (performance). Students must enroll in Ethnomusicology 199 (2 units) and pass a recital permission jury. Instrumental and vocal performers must present a portion of their recital performance, and composers must present excerpts from their recital scores in front of two faculty members. Students also enroll in Ethnomusicology 186 (2 units) during the term in which they perform their recital or their composition(s) are performed.

Public Ethnomusicology Capstone: Students must fulfill the capstone internship requirement, which consists of 8 units of Ethnomusicology 195B, in an institution approved by the faculty sponsor. Students must write a final research paper (at least 10 pages) at the completion of each internship.

Scholarly Research Capstone: Students must write a capstone thesis (25 to 30 pages) and enroll in Ethnomusicology 199 (2 units minimum) for at least one term while writing the thesis.

Independent Capstone: In consultation with a faculty adviser, students can propose capstone projects in other potential emphasis concepts such as technologies, film scoring, interactive arts, dance, and more. Students must enroll in Ethnomusicology 199 (2 units minimum).

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Ethnomusicology Minor

The Ethnomusicology minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of world music and performance.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and be in good academic standing, have completed one lower-division course with a grade of C or better, and have successfully completed at least two (2) quarters of the same lower-division ensemble course (Ethnomusicology 91A through 91Z).

Iranian Music Minor

The Iranian Music 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 Iranian music, performance, and culture.

Admission

To enter the minor, students must be in good academic standing (grade-point average of 2.0 or better), and have completed Ethnomusicology 5 or M25, 8, 91L, with grades of C or better.

Undergraduate Minors

Ethnomusicology Minor

The Ethnomusicology minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of world music and performance.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and be in good academic standing, have completed one lower-division course with a grade of C or better, and have successfully completed at least two (2) quarters of the same lower-division ensemble course (Ethnomusicology 91A through 91Z).

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

The Minor

Required Lower-Division Courses (9-10 units): Ethnomusicology 5 or M25, and one course from 7, M12A, M12B, 15, 30, M35, 40, 45, M50A, M50B, 60, or M73.

Required Upper-Division Courses (22 units): Ethnomusicology 101; three courses (6 units) from the same performance ensemble course numbered from 161A to 161Z; and three upper-division elective courses from the department. No more than one course from 195A to 199 may be applied to the minor.

Optional Focus in Iranian Music: Ethnomusicology C141, 142, 143, and three courses (6 units) of 161L.

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Ethnomusicology Minor

The Ethnomusicology minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of world music and performance.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and be in good academic standing, have completed one lower-division course with a grade of C or better, and have successfully completed at least two (2) quarters of the same lower-division ensemble course (Ethnomusicology 91A through 91Z).

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

The Minor

Required Lower-Division Courses (9-10 units): Ethnomusicology 5 or M25, and one course from 7, M12A, M12B, 15, 30, M35, 40, 45, M50A, M50B, 60, or M73.

Required Upper-Division Courses (22 units): Ethnomusicology 101; three courses (6 units) from the same performance ensemble course numbered from 161A to 161Z; and three upper-division elective courses from the department. No more than one course from 195A to 199 may be applied to the minor.

Optional Focus in Iranian Music: Ethnomusicology C141, 142, 143, and three courses (6 units) of 161L.

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.
Graduate Major

Ethnomusicology MA, CPhil, PhD

The department offers MA and PhD degrees in Ethnomusicology, with a specialization in systematic musicology or music and anthropology. Both degree programs train students for future university teaching careers, as well as careers in library science and archiving, the music industry, public service, and music technology. The department provides fellowships, teaching assistantships, and research assistantships for qualified students.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 music 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 Musicianship. (2–2-2) (Same as Music M6A-M6B-M6C and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisites 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 basic musicianship through participation in 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 musical forms, rules of improvisation, structure of modal system and rhythmic cycles, religious music, and traditional and modern pop music. Consideration of interrelationships between musical genres and other art forms (dance, theater, visual arts, and literature) and analysis of how these types of music have intersected 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.


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; use of creativity in music to respond to changing social, political, and cultural conditions. P/NP or letter grading.

19. Flat Lux Fraction. (4) Lecture, four hours; discussion, one hour. Survey of evolution of major aspects of society, history, and culture in India through music. There is abundance of incredibly rich cultural musical tradition. In the region. Indian music has much to offer in the social and cultural context. High- and low-brow music; those spanning problematic categories of folk, classical, and popular; and those as powerful as oppressed and marginalized peoples. Music as lens to look more deeply into social and cultural contexts across the world.woman 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.

91A-91L. World Music Performance Organizations. (1 each) Activity, three hours. Group performance of traditional vocal and instrumental music of world cultures. May be repeated for credit without limitation. P/NP or letter grading.

92. Private Instruction in Music. (2) Studio, one hour. Limited to Ethnomusicology majors. Private or semi-private instruction in music in groups of three to five, working in a one-on-one setting under the direction of a faculty member. 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, contracts, fieldwork, preservation, and access. Concurrently scheduled with technology, space, budgets, and staffing. Concurrently scheduled with course C200. P/NP or letter grading.

101. Introduction to Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Survey of field of ethnomusicology, basic fieldwork and analysis methods, and current issues in research. Introduction also of career opportunities for ethnomusicology graduates. Letter grading.

M103. Creating Musical Community. (4) (Same as Global Jazz Studies M103, Music M103, and Musi- community M103.) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notion of social contract that forms basis of musical playing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

105. Music Business. (4) Lecture, four hours; outside study, eight hours. Designed for junior/senior Ethno- musicology majors in public ethnomusicology emphasis. How music industry functions and how products are created, marketed, and consumed. Basic in- formation on production of recordings and legal issues faced by musicians, students, and scholars who use music in their practices. Letter grading.


106B. Contemporary North American Indian Music. (4) Lecture, three hours; discussion, one hour. Con- temporary 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.

M108A-108B. Music of Latin America. (5–5) Lecture, four hours; discussion, one hour. Course M108A is not required to take the M108B. Survey of theoretical and contemporary music of Latin America. M108A. Mexico, Central America, and Caribbean Islands (Same as Chicana/o and Central American Studies M108A); 108B. Latin South America.

M109. Women in Jazz. (4) (Same as African American Studies M109, Gender 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.

M110A-M110B. African Musical Heritage. (5–5) (Formerly numbered M120A-M120B.) (Same as African American Studies M116A-M116B and Global Jazz Studies M110A-M110B.) Lecture, four hours; discussion, one hour. Course M110A is not required to take M110B. Study of music of Africa and its impact on African America; music of 17th through 19th centuries; min- istry and its impact on representation of black in film, television, and theater; religious music, including hymns, spirituals, and black mass music of Gaelic and Central and South America; and music of black Los Angeles. M110B. Sociocultural history and survey of African American music covering blues, pre- 1947 jazz, swing, bebop, soul, funk, dance, hip-hop, and symbiotic relationship between re- recording industry and effects of cultural politics on black popular music productions.

M111. Ellingtonia. (4) (Same as African American Studies M111 and Global Jazz Studies M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington’s music, known as Ellingtonia, is one of largest and perhaps most important bodies of work produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Stray- horn and musicians Johnny Hodges, Cootie Williams, and Mercer Ellington. P/NP or letter grading.

113. Music of Brazil. (4) Lecture, three hours. History of ethnic and artist music in Brazil, with some reference to Portuguese antecedents. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) (Same as Chicana/o and Central American Studies M115.) Lecture, three hours, Concurrent study of musical aesthetics and the influence of various styles on the audience and other genres. P/NP or letter grading.

M116. Chicano/Latino Music in U.S. (5) (Same as Chicana/o and Central American Studies M116.) Lecture, four hours; discussion, one hour. Historical and analytical examination of development of Latin peoples who have inhabited present geographical boundaries of U.S. P/NP or letter grading.


118. Development of Rock. (5) Lecture, four hours. Examination of historical and stylistic development of rock from 1950s to 1980s, its roots in blues, jazz, function, musician, instruments, musical structure and re- lated arts, and contemporary music. P/NP or letter grading.

C130B. Music of Africa. (4) Lecture, four hours; out- side study, eight hours. Introduction to music of vari- ous African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C230B. Letter grading.


C141. Music of Turkey and Iran. (4) Seminar, three hours. Limited to junior/senior Ethnomusicology ma- jors. Comparative study of music of Iran and other re- gions as related to music and its influence on people’s perception of their historical and cultural background, sources on music theory and aesthetics, instruments, style, tech- nique of improvisation, and contemporary practice. Concurrent participation in Near East performance en- semble (course 91N or 161N) required. Concurrently scheduled with course C241. Letter grading.

142. Music and Culture in Afghanistan and Central Asia. (4) Lecture, four hours. Survey of music of Af- ghanistan, Turkmenistan, Tajikistan, Uzbekistan, and Xinjiang, including traditional and popular styles. Ex- amination of modal systems and specific music narratives of these regions, and exploration of cultural contexts, communicative functions, forms, styles, in- struments, and musical philosophies. Consideration of interrelationships between musical genres and other arts and ideologies. Some knowledge of Persian and Arabic lan- guages desired. Introductory knowledge of musical terms and concepts throughout. Letter grading.

143. Musical Traditions among Iran: Baluchistan, Kurdistan, Azerbaijan, and Iraq. (4) Lecture, four hours. Introduction to selected types of music among Iran with particular attention to Azeri, Persian, and Kurdish music. Study of structures and genres of music in urban and rural communities. Examination of how music-making relates to aspects of current
Middle Eastern life such as religious observance, gender relations, ethnic and national identity, and process of globalization. Letter grading.

144. Special Topics in Iranian Music. (4) Seminar, three hours. Requisites: courses 5 or M25, and 8. Exploration of topics on musical cultures and styles in Iran focusing on specific sociopolitical contexts, sexuality and gender studies, politics and resistance, religion, mysticism and spirituality, and role of musical discourses and practices in Iran and in its multiple diaspora contexts. Topics announced in advance. May be repeated for credit. P/NP or letter grading.

145. Analyzing Rhythm in Persian Music. (4) Seminar, three hours. Requisites: courses 5 or M25, and 8. Examination of rhythm principles of Iranian music. Through theoretical and applied methods, exploration of experience of musical rhythm in Iran. Students learn various rhythmic functionalities in order to gain deeper understanding and appreciation for Iran’s traditional, folklore, religious, and mystical musical styles. Examination of core rhythmic elements in Iranian music both through ethnomusicological literature on and by practicing Persian percussion in class. P/NP or letter grading.

146. Folk Music of South Asia. (4) Lecture, three hours; laboratory, one hour. Illustrated survey of some regional musicological 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 Chinese 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.

150. Music and Politics in East Asia. (4) Lecture, four hours. Limited to Ethnomusicology, Music, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. Political imperatives have long had direct and often explicit impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C250. Letter grading.


159. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for undergraduate Ethnomusicology, Music, Music History, 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, Ti- betan Music and China’s border regions. Concurrently scheduled with course C259. P/NP or letter grading.


161A-161Z. Advanced World Music Performance Organizations. (4–4) Three hours; outside practice, three hours. Limited to Ethnomusicology majors. Advanced study of traditional vocal and instrumental world music. May be repeated for credit within theEthnomusicology curriculum. P/NP or letter grading.


161P. Advanced World Music Performance Organizations: African American Music Ensemble. (2–2) Activity; three hours; outside practice, three hours. For selected students. Performance of diverse range of vocal repertoire including spirituals, gospel, freedom/"Civil Rights" songs, and other works by African diasporic composers, in collaboration with community centers and churches. Limited to Ethnomusicology majors. P/NP or letter grading.

162. Advanced Private Instruction in Music. (2) Studio, one hour; outside practice, five hours. Preparation for three years of private instruction with distinguished master and disciple teaching and tutoring, shape imitation, and various forms of contemporary choral music. Tracing development of this music from 1600s to present, African American choral performance, a cappella or with instrumental accompaniment. May be repeated for credit without limitation. Letter grading.

163. Theory, Practice, and Improvisation in Iranian Music. (4) Seminar, three hours. Requisites: courses 5 or M25, and 8. Designed to expose students from wide backgrounds to experience, insights, and training to many facets of art and craft of improvisation in Iranian music. Examination of how organization of radif (collection of melodic figures preserved through oral tradition that provides basis of improvisation, and master and disciple teaching and tutoring, shape improvisational and performance practices in Iranian traditional music. Comparison of radif to number of related traditions: maqam, Turkish makam, and number of ragas from North Indian tradition. Includes in part workshop format in which students are encouraged to bring their own musical instruments, or for vocalist to join in, in exploring radif. Students read about theoretical issues of radif, and learn how to memorize, compose, and improvise important parts of radif. P/NP or letter grading.

164. World Music from China’s Border Regions and Neighboring Countries. (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 traditional-Western musical systems. Final project required. Letter grading.

165. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Evaluation of important musical concepts and approaches to enable students to develop greater compositional insight 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 and structural paradigms from literature, visual arts, and other sources to develop student compositions. May be repeated once for credit. Concurrently scheduled with course C270. Letter grading.

165A-165F. Advanced World Music Specializations. (2–2) Activity, three hours; outside practice, three hours. Advanced performance of specializations in traditional vocal music, instrumental music, and dance. May be repeated for credit without limitation. P/NP or letter grading.


167. Music and Capitalism in West. (4) (Same as Music Industry M176) Lecture, four hours. Follows history of western capitalism and how it has shaped musical making and listening to present time. P/NP or letter grading.

168. Music and Capitalism in West. (4) (Same as Music Industry M176) Lecture, four hours. Follows history of western capitalism and how it has shaped musical making and listening to present time. P/NP or letter grading.


175. Sociology 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.

181. Anthropology of Music. (4) Lecture, four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. 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.

182. Music Industry. (4) (Same as Music CM182, Musicology CM186, and Music Industry M182) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology majors. Requisites: Mail approval. Examination 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 radio, television, and recording to MTV and popular music today. Concurrently scheduled with course CM288. Letter grading.


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184. 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 approaches of applied, practical and policy-oriented in approach. Concurrently scheduled with course C226. 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. Letter grading.

186. Seminar in Research Project. (2) Tutorial, one hour. Limited to seniors. Final project for students who, with approval from their faculty advisers, 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.

187. 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.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through 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. 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 or Corporate Internships in Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide 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.

195B. Community or Corporate Internships in Publ. 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. Participation in theoretical discussions of world music teaching, fieldwork, and others. Native theo- ries in elementary and secondary music and social studies classrooms. P/NP or letter grading.

197E. Individual Studies in Ethnomusicology. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in ethnomusicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

197S. Individual Studies in Systematic Musicology. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in systematic musicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ethnomusicology. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Ethnomusicology majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

C200. Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C100. S/U or letter grading.

201. History of Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Basic literature and schools of thought in 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 ethnomusicology from 1980s to present. Letter grading.


205. Seminar: Information Technology and Research Skills. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Lecture, demonstration, and practice. Basic skills for research on and about music that is essential to student careers as ethnomusicologists, specifically information technology skills, acoustics, and representational tools for nonlinguistic acoustic phenomena. Basic understanding of acoustics, ability to represent sounds in various graphic forms appropriate to them, and ability to locate and organize relevant resources 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 they assist students with supervisory writing and ideas with their ethnographic or historical data. Reading of several recent ethnographies, mostly about music and possibly historical studies, in tandem with theoretical writings that inform arguments of these books. Letter grading.

207. Seminar: North American Indian Music. (4) Seminar, three hours. Requisite: course 106A or 106B. Seminar, major perspectives on North American Indians, including problems of transmis- sion, methods of analysis, symbolic implications of song texts. Emphasis on interrelationship between music and cultural context. Influence of Western music on Native American music, contact with other domains of discourse and practice such as philosophy, history, literature, art, and folklore. Examination of ways musicians, ordinary people, and politicians 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.

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 inves- tigations on specific musical cultures and distinct genres of musical expression. S/U or letter grading.


215A-215B. Ethnomusicalogical Perspectives and Pedagogics 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. 215A, Late 19th century to 1980s; 215B, 1960s to Present.

216A-216B. Ethnomusicalogical Methods I, II. (4-4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Letter grading. 216A. Basic research techniques and per- spectives on conducting research and writing it up in ethnomusicology. 216B. Introduction to basic ethno- graphic fieldwork techniques and practices in ethno- musicology.


230. European Musics: Politics, Identities, Nation- alisms. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. European classical, popular, and traditional musics, with particu- lar attention to way in which music mirrors, negoti- ates, and contests ideas about and practices of na- tion, race, class, and other domains of discourse and practice such as philo- sophy, history, literature, art, and folklore. Examination of way musicians, ordinary people, and politicians 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.
C233A-C233B-C233C. European Traditional and Popular Music, (0–4–0) 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 (C233A, C233B, C233C) three hours counseling.

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 will gain an understanding of diverse music traditions found on African continent and become more cognizant of contributions that people of Africa have made to music world. Concurrently scheduled with course C136B. Letter grading.


C240. Music of Arab World. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their historical and cultural background, sources on music theory and aesthetics, instruments, style, technique of improvisation, and contemporary practice. Concurrent participation in Near East performance ensemble (course 91N or 161N) required. Concurrently scheduled with course C140. S/U or 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 and cultural background, sources on 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.

C248. 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. S/U or 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 music in all parts of East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C150. Letter grading.


C255. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours. Designed for ethnomusicology, music history, and world arts and cultures graduate students. Survey of major theories and debates on teaching and public communication and publication by scholars, officials, and culture-bearers involved in intangible cultural heritage policy and practice, examination of history of heritage conservation; concepts of tangible and intangible heritage; pioneering roles of Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy worldwide; tensions among international ideals, nation-state rationalisms, 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 selected case studies. Concurrently scheduled with course C155. Letter grading.


259. 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, Tibet-Burman peoples, Hmong, 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 music as a culture. Topics range from ethnomusicological gender and sexuality, decontextualization of messages of 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. Ethnomusicological, theoretical, and methodological issues in study of city as cultural entity 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. Charles Seeger’s (1886 to 1979) major writings and influence on three fields he helped to found (ethnomusicology, systematic musicology, historical musicology), as well as his interest in applied musicology and American 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, leading roles 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. Examination of possibilities for subject-centered musical ethnography to account for fragmented musics currently widespread in China, including how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in 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 and altered 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 C165. Letter grading.

271. Seminar: Acoustics of Music. (6) Seminar, three hours. Requisite: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Introduction to Western and non-Western instruments, tuning systems, 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.

275. Seminar: Aesthetics of Music. (6) Seminar, three hours. Specific topics in Western and non-Western aesthetic thinking, including value, meaning (semiotics), historical development of theoretical perspectives and critical theory, and interpretation. May be repeated once for credit. S/U or letter grading.

279. Seminar: Systematic Musicology. (4) Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, acoustics, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit. S/U or letter grading.


281A-281B. Seminars: Field and Laboratory Methods in Ethnomusicology. (6-8) Seminar, three hours; laboratory, two hours. Requisites: courses 201, 202. Field methods and laboratory equipment, conducting interviews, dealing with ethical issues, and designing research projects. S/U or letter grading.


285. Seminar: Comparative Music Theory. (6) Seminar, three hours. Comparative study of music theories of select cultures—Western and non-Western—considered in themselves and as expressions of their societies. Theory considered as science of organizing musical phenomena 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 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 CM184. 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 fieldwork grants, organizing and presenting advanced academic proposals with sophisticated methods and professional writing skills. S/U or letter grading.


291. Ethnomusicology Colloquium Series. (1) Research group meeting, one hour. Limited to graduate ethnomusicology students. Introduction to new trends and issues in discipline of ethnomusicology in effort to strengthen and stimulate intellectual community within department. Topics vary from term to term and consist of presentations by guest lecturers, faculty members, and students. May be repeated for credit. S/U grading.

292A–292Z. Seminars: Special Topics in Ethnomusicology. (4 each) Seminar, four hours. Designed for graduate students. Utilization of special interests and expertise of regular and visiting faculty; topics of current interest presently offered in ethnomusicology program. 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.

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, spreadsheet, web design, and digitization software, and its application in classroom and in preparation of electronic teaching portfolio. S/U grading.

566. 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.

597. 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.

598. Guidance of MA Thesis. (4, 6, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. Guidance of PhD Dissertation. (4, 6, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

### European Languages and Transcultural Studies

**College of Letters and Science**

212 Royce Hall

Box 951539

Los Angeles, CA 90095-1539

**European Languages and Transcultural Studies**

310-825-1145

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 geopolitical 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 underlining 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 geopolitical space. The department trains students to think critically, to develop writing and research skills, and to understand the power of language to pursue advanced research in a challenging intellectual and globalized world. Students are prepared...
for graduate school and careers in education, international law and business, the arts, media and journalism, international health organizations, advertising, management consultancy, diplomacy, and publishing.

The various Bachelor of Arts (BA) degrees offered in ELTS share common foundational courses across language traditions and offer students the opportunity to specialize in individual language tracks. The BA in ELTS includes language training, but allows students design an individualized curriculum structured around ELTS offerings; whereas the BA in ELTS with individual language tracks provides students with a background in Europe and also in the various fields of French, Germanic, and Italian. In French, Germanic (Dutch, German, Yiddish), and Italian, this includes the study of culture, literature, and society, enhancing the understanding of the many facets of European civilization. In Scandinavian and Nordic Studies (Denmark, Finland, Norway, and Sweden), students explore how this region forms a geographic bridge between the American and European continents and a political bridge between Western and Eastern Europe. Together, the degrees offer undergraduate students a broad, interdisciplinary understanding of Europe, with a robust knowledge of the cultures and histories of this region from a global, trans-disciplinary, and transcultural perspective.

Students considering a major or minor in the department should consult with the departmental undergraduate adviser as soon as possible in their university career in order to select courses to fulfill major or minor requirements. The approved list of courses for each category of major or minor requirements is available in the department office, 212 Royce Hall, and on the department website.

Undergraduate Policies

No credit is allowed for completing a less advanced course in a field of interest or a more advanced course in Danish, Dutch, Finnish, French, German, Italian, Norwegian, Swedish, or Yiddish grammar and/or composition.

Graduate Study

The graduate programs offer the Master of Arts (MA) degree and the Doctor of Philosophy (PhD) degree in, French and Francophone Studies, Germanic Languages, and Italian, and an MA only in Scandinavian. Admission to graduate programs is prioritized for PhD degree applicants. They comprise advanced training in the various fields, as well as in literary criticism, cultural analysis, film studies, the applied humanities, and theory.

Undergraduate Majors

European Languages and Transcultural Studies BA

Learning Outcomes

The European Languages and Transcultural Studies major has the following learning outcomes:

- Demonstrated advanced proficiency in one or more languages offered in the department
- Demonstrated proficiency in one of the areas of the experimental humanities (digital, environmental, medical, and urban)
- Demonstrated deep understanding of European culture and history, including in a global context
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

Entry to the Major

Transfer Students

Transfer applicants to the European Language and Transcultural Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: completion of intermediate level of Danish, Dutch, Finnish, French, German, Italian, Norwegian, Swedish, or Yiddish, and any one course on European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: one course from French 6, German 6, Italian 6, Scandinavian 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, 58, 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: Comparative Literature 1E, Digital Humanities 30, Environmental: English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: German 61A.

The Major

Required: One course selected from three of the following four areas:

- European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Required Elective Courses: Six courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 100 through M158, or Scandinavian C131 through C185.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

Policies

The Major

Student may apply no more than two courses or 8 units from other departments. Approval for outside courses must be petitioned with the undergraduate adviser of the department. Students may apply no more than 4 units of European Languages and Transcultural Studies and European Languages and Transcultural Studies with French and Francophone major.

Entry to the Major

Transfer Students

Transfer applicants to 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

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
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

Entry to the Major

Transfer Students

Transfer applicants to the European Languages and Transcultural Studies with 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.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**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, Scandinavian 40, 40W, 50, 50W, 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular and Developmental Biology 60, Study of Religion 55, Urban; German 61A.

**The Major**

*Required:* advanced language course, three area courses, five elective courses, and a capstone senior thesis.

**Advanced Language requirement:** French 100 or 101.

One course selected from three of the following four areas (total of three courses):


- **European Film and Media:** Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

- **Experimental Humanities:** Community Engagement and Social Change 100XP, 172XP; Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F; European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

- **Required Elective Courses:** Three courses selected from French 100 through 169, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 102 through 175, Italian 100 through 1518, or Scandinavian C131 through C185.

In addition to the advanced language requirement, students are required to complete a minimum of three upper-division courses in the target language from the required and elective sequences.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

**Policies**

**The Major**

*Required:* advanced language course, three area courses, five elective courses, and a capstone senior thesis.

**Advanced language requirement:** German 152 or 153

One course selected from three of the following four areas (total of three courses):


- **European Film and Media:** French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

- **Experimental Humanities:** Community Engagement and Social Change 100XP, 172XP; Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F; European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

- **Required Elective Courses:** Three courses selected from German 104 through 175, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 100 through 1518, 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 with German BA**

**Learning Outcomes**

The European Languages and Transcultural Studies with German major has the following learning outcomes:

- Demonstrated advanced proficiency in German
- Demonstrated proficiency in one of the areas of the experimental humanities (digital, environmental, medical, and urban)
- Demonstrated deep understanding of European culture and history, including in a global context, with a particular expertise in German
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

**Entry to the Major**

**Transfer Students**

Transfer applicants to the European Languages and Transcultural Studies with German major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of German, and any one course in European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

*Required:* German 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, 77, Scandinavian 40, 40W, 50, 50W, 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular and Developmental Biology 60, Study of Religion 55, Urban; German 61A.

Students who have completed one year of college-level German language courses should enroll in course 4. Students who are in doubt as to their level of language proficiency or who are native speakers should consult with the language program supervisor.

**The Major**

*Required:* advanced language course, three area courses, five elective courses, and a capstone senior thesis.

*Advanced language requirement:* German 152 or 153

One course selected from three of the following four areas (total of three courses):


- **European Film and Media:** French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

- **Experimental Humanities:** Community Engagement and Social Change 100XP, 172XP; Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F; European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

- **Required Elective Courses:** Three courses selected from German 104 through 175, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 100 through 1518, or Scandinavian C131 through C185.

In addition to the advanced language requirement, students are required to complete a minimum of three upper-division courses in the target language from the required and elective sequences.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

**Policies**

**The Major**

Student may apply no more than two courses or 8 units from other departments. Approval for outside courses must be petitioned with the
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 written skills

Entry to the Major
Transfer Students
Transfer applicants to the European Languages and Transcultural Studies with Scandinavian major have 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian, and any one course on European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Italian 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, 55, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental: English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: German 61A.

The Major
Required: advanced language course, three area courses, five elective courses, and a capstone senior thesis.

Advanced language requirement: Italian 100.

One course selected from three of the following four areas (total of three courses):

- European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Community Engagement and Social Change 100XP, 172XP. Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Required Elective Courses: Three courses selected from Italian 102A through M158, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 102A through M158, or Scandinavian C131 through C185.

In addition to the advanced language requirement, students are required to complete a minimum of three upper-division courses in the target language from the required and elective sequences.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

Policies
The Major
Student may apply no more than two courses or 8 units from other departments. Approval for 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 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 written skills

Entry to the Major
Transfer Students
Transfer applicants to the European Languages and Transcultural Studies with Scandinavian major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of either Swedish, Norwegian, or Danish, and any one course on European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Scandinavian 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, 77, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental: English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: German 61A.

The Major
Required: One course selected from three of the following four areas (total of three courses):

- European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Community Engagement and Social Change 100XP, 172XP. Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.
learning outcomes:
The Nordic Studies major has the following requirements:
- Demonstrated understanding of the role of the Nordic region in global context, and the impact of global phenomena on the region
- Identification, evaluation, and analysis of appropriate primary sources
- Working knowledge of scholarly discourse from broad range of disciplines
- Conception and execution of a project that identifies and engages with a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Requirements

The Major
Required: Nine courses from the following five tracks, with at least one course in each of the following:
1. early Nordic literatures and cultures—Scandinavian C131, C133A, 134, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian C155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandinavian C171, 173A, 174A, 174B, C180; and one upper-division capstone course (Scandinavian 199) under the direction of a faculty member. As an option, four upper-division courses in a related field may be taken if approved in advance by the undergraduate adviser. In general, the courses must include significant content related to the Nordic region.

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 website that reflects significant engagement with a challenging question or in the Nordic studies. Through their capstone work, all students are expected to demonstrate their skills in articulating a clear and sophisticated research question, devising a realizable set of research goals, deploying their advanced knowledge of a Nordic language to access target language research materials and incorporate them into the research corpus, devise an appropriate modality for the final project, present a concise engaging public presentation of their research and respond to questions, and archive their project in an appropriate form.

Learning Outcomes
The Nordic Studies major has the following learning outcomes:
- Demonstrated command of the linguistic and cultural diversity of the Nordic region
- Demonstrated command of the economics, politics, environments, and histories of the Nordic region
- Demonstrated specific skills and expertise, including research, analysis, and writing

Undergraduate Minors
European Languages and Transcultural Studies Minor
Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Courses (8 units): One course selected from French 6, German 6, Italian 6, Scandinavian 6, or equivalent; and one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, 77, Scandinavian 40, 40W, 50, 50W, or 80W.

Required Upper-Division Courses (20 units): Three upper-division courses in European literature, culture, film, or media selected from three of the following areas:


Required: Nine courses from the following five tracks, with at least one course in each of the following:
1. early Nordic literatures and cultures—Scandinavian C131, C133A, 134, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian C155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandinavian C171, 173A, 174A, 174B, C180; and one upper-division capstone course (Scandinavian 199) under the direction of a faculty member. As an option, four upper-division courses in a related field may be taken if approved in advance by the undergraduate adviser. In general, the courses must include significant content related to the Nordic region.
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European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.

Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Upper-Division Electives: Two upper-division elective courses (minimum 8 units) selected from Italian.

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 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 selected from three of the following four areas:


European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.

Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Upper-Division Electives: Two upper-division elective courses (minimum 8 units) selected from German.

One upper-division required course must be taught in German.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

European Languages and Transcultural Studies with Italian Minor

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Courses (8 units): Italian 6 or equivalent; and one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, 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 selected from three of the following four areas:


European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.

Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Upper-Division Electives: Two upper-division elective courses (minimum 8 units) selected from Italian.

One upper-division required course must be taught in Italian.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Scandinavian Minor

Admission
To enter the Scandinavian minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Courses (28 units): Any seven Scandinavian courses, two of which may be lower-division courses selected from Scandinavian 1 through 50.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

French and Francophone Studies MA, CPhil, PhD

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

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

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

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

10. Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes. (5) Lecture, three hours. Lectures and readings in English. Country known as Holland, or more correctly, The Netherlands (in Dutch: Nederland) has played crucial role in both American history and American current events. It was first country to set up official diplomatic relations with U.S. in 1782) and is major investor in U.S. and staunch ally of its foreign policy. Piercing of tourist aura surrounding The Netherlands by actively comparing and contrasting contemporary Dutch culture and society with contemporary American culture and society. How life would be different growing up in the Netherlands. 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.


131. Introduction to Modern Dutch Literature. (4) Lecture, three hours. Requisite: course 103B. Selected works of literature of Netherlands and northern (Flemish) Belgium such as Boon, Claus, Couperus, Hermans, Mulisch, Multatuli, and Reve and selected poets such as Campert, Gezelle, Gorter, Kloos, Lucebert, Nijhoff, Van Ostalder, and Worman. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. 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. P/NP or letter grading.

189HC. 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; consult Undergraduate Research Center. May be repeated. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Enrolled for credit by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP 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 credit. Individual honors contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

596. Directed Individual Study or Research in Dutch. (4) Tutorial, to be arranged with faculty member who directs study (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.
French
Lower-Division Courses
1. Elementary French. (4) Lecture, five hours. P/NP or letter grading.
2. Elementary French. (4) Lecture, five hours. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.
3. Elementary French. (4) Lecture, five hours. Enforced requisite: course 2 with grade of C– or better. P/NP or letter grading.
7. Intensive First-Year French. (12) Lecture, 15 hours. All-in-French intensive language program equivalent to first year of college French and designed to develop basic language skills. Additional work in language and media laboratories required. Offered in summer only. P/NP or letter grading.
8. 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.
10. Introduction to French Culture and Civilization in English. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 14W. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. Satisfies general education in Areas B1 and B4. P/NP or letter grading.
13. Advanced French Composition. (5) 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 comprehension and pronunciation. P/NP or letter grading.
15. French and Francophone Literature. (5) Lecture, five hours; discussion, one hour. Study of major authors and movements in Francophone world (Canada, Africa, Caribbean, etc.) from 17th to early 21st century. P/NP or letter grading.
17. Oral and Written Communication in Professional Environment. (4) Lecture, three hours. Oral and written communication in professional environment, including job search (résumé and cover letter), correspondence (professional letter and e-mail), and how to understand and negotiate work life in French-speaking company. P/NP or letter grading.
114B. Survey of French Literature: 17th and 18th Centuries. (5) Lecture, three hours. Required: course 12. Study of selections from major works of classicism and Enlightenment, including those by Racine, Pascal, La Fayette, La Fontaine, Laclos, Diderot, Voltaire, and Rousseau. (4)


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 Pédale and 16th-century poetry, linguistic and poetic evolution and early print, 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 salon, novel, theater, philosophers, and theoretical 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 existentialist, 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, immigrant narratives, and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.

130. Contemporary French Theory. (4) Lecture, three hours. Required: course 12 or 100. Taught in French. Study of French theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Ingarden) and major concepts in contemporary French thought, with attention to nonacademic issues in nonliterary texts. May be repeated for credit with topic change. P/NP or letter grading.


140. French and Francophone Intellectual History. (4) Lecture, three hours. Required: course 12 or 100. Taught in French. Exploration of themes that address particular problem of French literature, civilization, or ideology. 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 and led by lecture course instructor. May be repeated for credit with consent of major adviser. P/NP or letter grading.

191A. Variable Topics Research Seminars in Translations. (4) Seminar, three hours. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. P/NP or letter grading.

191B. Variable Topics Research Seminars: French. (4) Seminar, three hours. Taught in French. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major adviser. P/NP or letter grading.

195. Community or Corporate Internship in French. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experiences. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in French. (4) Tutorial, three hours. Limited to junior/senior French majors with 3.5 departmental and 3.25 overall grade-point averages. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in French. (4-8) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Techniques of Literary Analysis. (4) Lecture, three hours. Practice in close analysis of literary texts, including explanation of 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 disciplines 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, Baudrillard, Lyotard, Ross, Rey Chow, Virilio, S/U or letter grading.

203. Contemporary Francophone Literature. (4) Lecture, three hours. Study of Francophone African, Caribbean, and/or Caribbean literatures and cultures, with specific attention to issues of cultural contact, language, colonialism, anticolonialism, nationalism, resistance and dissolution, and postcolonial theory. S/U or letter grading.

210. Studies in Francophone Intellectual History. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to genre of autobiography in literatures in French across centuries. Topics include early modern approaches to personal identity, emergence of modern self, women’s autobiography in France and Francophone world. Theorists may include
Seminar, three grading.
Pierre Bourdieu, Toril Moi. S/U or letter grading.


Studies in History of Ideas. (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.

Studies in Literary Criticism. (4) Seminar, three hours. Advanced research and study of literary genres such as poetry, drama, fiction, autobiography, or performance and of theory of these genres. S/U or letter grading.

M210. Palaeography of Latin and Vernacular Manuscripts, 900 to 1500. (4) Same as Classics M218, English M215, and History M218. Lecture. Three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscripts. 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 texts, (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.


219. 18th Century. (4) Lecture, three hours. Readings in 18th-century French literature and thought: novels, poetry, and theater from Romantic period to fin-de-siecle. S/U or letter grading.

220. 20th Century. (4) Lecture, three hours. Overview of both historical and analytical, of 20th-century French literature set in context of several key critical topics that interrogate canonical interpretation. Letter grading.

296. Research Methods and Writing. (2) Seminar, two hours. Advanced study of current topics in literary and cultural analysis and in critical theory. Discussion of current research 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.

495. Teaching French at College Level. (4) Seminar, three hours; discussion, one hour. Designed for graduate students. Theoretical and practice of language teaching. S/U grading.

596. Directed Individual Studies or Research. (2 to 4) Tutorial, to be arranged. S/U or letter grading.

597. Preparation for Second-Year Review or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. May be repeated for maximum of 16 units. S/U grading.

598. 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.


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.

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.

50B. 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, Böll, and Christa Wolf. May not be applied toward completion of major in German. P/NP or letter grading.

56. 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.

59. Holocaust in Film and Literature. (5) Lecture, three 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.

61A. Modern Metropolis: Berlin. (5) Lecture, three hours; discussion, one hour. Cultural, political, architectural, and urban history of one of most vibrant and significant cities in world. Exploration of city over 800 years, using innovative mapping tools to understand how Berlin evolved from fortified mercantile town into global city. P/NP or letter grading.

88. Lower-Division Seminar. (4) Seminar, three hours. Course of variable content limited to topics of current interest and offered when regular staff member is available. 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 reading or other work. 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

102. War, Politics, Art. (5) Lecture, three hours; discussion, one hour. Taught in English. Analysis of interrelationships between politics, social conditions, and arts with respect to war. World Wars I and II and German history to be used as model for principal questions of society and philosophical thinking. P/NP or letter grading.

103. German Film in Cultural Context: Early German Film. (4) Lecture, two hours; discussion, one hour. Taught in English. Survey of German film between 1919 and 1945. Analysis of technological and stylistic development of the silent cinema, including expressionist films to Nazi propaganda and entertainment films. Film discussions enhanced by interactive media. Letter grading.

104. German Film in Cultural Context, 1945 to Present. (4) Lecture, three hours. Taught in English. Survey of German film since 1945 in its thematic and stylistic diversity. How did German filmmakers grapple with aftermath of World War II, Holocaust, economic recovery, Cold War and division of Germany, reunification, and growth of minority communities? May be repeated twice for credit with topic change. Letter grading.

109. Jewish Question and German Thought. (4) Lecture, three hours. Taught in English. Analysis of works that represent process of Jewish assimilation, disenfranchisement, and extermination, including au- thors such as Mendelssohn, Heine, Kafka, Paul Celan, Nelly Sachs, Anne Frank, and others. Letter grading.

110. Special Topics in Modern Literature and Culture. (4) Lecture, three hours. Taught in English. Content varies with instructor and may include works by authors such as Thomas Mann, Kafka, Brecht, Christa Wolf, and others. May be repeated for credit. Letter grading.

112. Feminist Issues in German Literature and Culture. (4) Lecture, three hours. Taught in English. Analysis of major issues in German feminism today (e.g., status, creative work, and reception of women writers in various periods such as Romanticism, Fascism, and/or divided/unified Germanies). Letter grading.

113. German Folklore. (4) Lecture, three hours. Taught in English. Survey of various folklore genres in cultural context, including legends, proverbs, and cultural enactments such as carnival. Letter grading.

114. Fairy Tales and Fantastic. (5) Lecture, three hours; discussion, one hour. Taught in English. History and reception of folklore collections in Europe, with particular attention to ideology and influence of Grimm’s tales. Interpretation of selected tales and their transformations in light of folklore, film, advertising, and pedagogy. P/NP or letter grading.

115. 19th-Century German Philosophy. (4) Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passive subsistence to be fundamental nature of all things, is one of German thought about humanity. Exploration of first half of two-century history of German philosophy—period from Kant to Nietzsche, including Hegel, Kierkegaard, and Marx. Letter grading.
118. Second-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, Gadamers, Jaspers, and Frankfurt School. Letter grading.

117. German Exile Culture in Los Angeles. (4) Lecture; three hours. Taught in English. Cultural and historical exploration of exile as site of creative activity for German writers and 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. (2) Seminar; two hours; fieldwork, two hours. Strongly recommended requisites: prior European and Holocaust history courses. Examination of historical view of eyewitness testimony of Holocaust through unique service opportunities that bring students together with survivors. Question of testimony approached from number of perspectives, including legal, historical, and ethical, to examine vexed relations of testimony and memory, examination of survivor testimony through classic membranes in field, such as Primo Levi’s *The Drowned and the Saved* and Ruth Kluger’s *Still Alive*. Through collaboration with various organizations, 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 write papers of interest in seminars throughout Museum of Holocaust. Letter grading.

140. Language and Linguistics. (4) Lecture; three hours. Enforced requisite: course 152. Enforced proficiency required. Taught in English with German proficiency required. Theories and methods of linguistics, with emphasis on structure of modern standard German, its phonology, morphology, syntax, semantics, and pragmatics. Other topics include diachronic, spatial, and social variation of German (including dialectology, and sociolinguistic dimensions). Letter grading.

141. Current Topics in Germanic Linguistics. (4) Lecture; three hours. Enforced requisite: course 152. Taught in English with German proficiency required. In-depth investigation of one topic in field of Germanic linguistics, such as phonetics and phonology, morphology and syntax, semantics and pragmatics, and spatial and variation (i.e., sociolinguistics and dialectology of German), or history of German. May be repeated for credit. Letter grading.

C142. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: course 150 or Linguistics 20. Taught in English with German proficiency required. Problems in 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 C238. Letter grading.

152. Conversation and Composition on Contemporary German Culture and Society I. (4) Lecture; three hours. Requisite: course 6. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

153. Conversation and Composition on Contemporary German Culture and Society II. (4) Lecture; three hours. Requisite: course 6. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

154. Business German. (4) Lecture; three hours. Requisite: course 6. Taught in German. Specialized language course that teaches German business ad-

155. Advanced German Language through Cultural History and Current Affairs. (4) Lecture; three hours. Enforced requisites: courses 152, 153. Taught in German. Advanced German language course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and criticism. Relevations from Hitler, Heine, Freud, and current authors. Students create their own interactive media presentations. Letter grading.

157. Contemporary German Cinema: Advanced Conversation and Composition. (4) Lecture; three hours. Taught in German. Development of advanced speaking skills and thorough grounding in essay writing in German by considering issues of style, structure, grammar, and vocabulary. Introduction to contemporary German cinema to expose students to slice of German (and European) culture and history, with focus on notion of boundary. Examination of different types of boundaries and borders (e.g., physical borders between countries; boundaries created by various political ideologies; socially created boundaries, boundary between memory and experience), ways in which people cross them, and their reasons for these transgressions. Analysis of movies to better understand various cinematic structures, cultural, and historical contexts. Letter grading.

158. Introduction to Study of Literature. (4) Lecture; three hours. Taught in German. Introduction to most important terms and resources of literary analysis to help students develop and improve skills in close and critical reading of literary texts, develop basic research techniques, acquire familiarity with basics of literary and cultural analysis, and find pleasure in pursuit of literary and cultural study. Letter grading.

159. German Cultural Studies. (4) Lecture, three hours. Requisite: course 150 or 153. Taught in German; some theoretical readings in English. Exploration of German culture in different historical contexts. Examination of various cultural spaces, practices, and standpoints as staged in literary and nonliterary texts, with emphasis on constructions of sex and gender, memory and national identity, and ethnicity and race. Analysis of ways of seeing, thinking, and talking about these issues as manifested in public debates that dominated public discussions in Germany (and Europe) for several weeks, months, or even years (e.g., debates about the nation’s role in and after World War II, debates about memory in postwar Germany, and headscarf and integration in contemporary Germany). Letter grading.

170. Goethe. (4) Lecture; three hours. Requisite: course 150 or 153. Taught in German; some theoretical readings in English. Exploration of Goethe’s early period (Die Leiden des jungen Werther) through maturity and old age (West-östlicher Divan). Students work with digital humanities methods to improve German language competency and evaluate Goethe’s global influence on Western intellectual history. Letter grading.


174. Advanced Study of Contemporary Literature and Culture. (4) Lecture; three hours. Enforced requisite: course 152 or 153. Taught in German. Literature after 1945 in German-speaking countries, including issues 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 standpoints 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 and other minority writers. Exam-

187. Undergraduate Seminar. (4) Seminar; three hours. Required of all German majors who are candidates for general secondary instructional credential. Content varies by instructor and may include advanced work in folklore, film, and German studies. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

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 Research Seminar: German. (4) Seminar; three hours. Requisite: course 6. Taught in German. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movements, or theoretical practices. May be repeated for credit with consent of major 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 paper or other final project. Must 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.
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 some 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 introductory study of development of German as modern literary language and to literary genres and cultural models. Impact of Thirty Years' War on German literary production and reception in German baroque period. Letter grading.


206. Weimar Classicism. (4) Lecture, three hours. Reading and interpretation of major works of German classicism. May include problems in reception of classicism by later authors and cultural theorists. Letter grading.

208. Romanticism. (4) Lecture, three hours. Analysis of selected works and theories of German Romantics such as Friedrich Schlegel, Novalis, and Hoffman, with attention paid to role of movement between Romanticism and other periods. Letter grading.


210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works (poetry, drama, prose) of early modernism from Hauptmann to Kafka. Discussion of sociological spectra and pluralism of styles and forms. Letter grading.

210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of 20th century as they express war experience, crisis of consciousness, and cultural conflicts between wars, as well as innovations in narrative. Letter grading.

211. Postwar Literature. (4) Lecture, three hours. Study of major works by German-speaking authors writing since World War II. Examination of issues such as identity crises, nationalism and divided Germany, gender expectations, and social-political attitudes. Letter grading.

212. Contemporary Literature and Culture. (4) Lecture, three hours. Analysis of current cultural issues and their relation to literary production and interpretation. Topics may include areas such as feminism, postcolonialism, postmodernism, and contemporary theories of textuality. Letter grading.

213. Topics in Literature and Film. (4) Lecture, three hours. With focus on two different modes of cultural representation, examination of topics in German literature and film from Weimar Republic to present. 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-Europeanized tribes, West Germanic period, and Enlightenment until its final codification at end of 19th century. S/U or letter grading.


232. Old High German. (4) Discussion, three hours. Introduction to earliest phases of German literature, with extensive readings in major documents of that period (750 to 1050). Emphasis on grammatical interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.


C238. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisites: course 140 or Linguistics 20. Taught in English with German proficiency required. Problems in 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 and dialectology, or language contact. Letter grading.

252. Seminar: Historical and Comparative Germanic Linguistics. (4) Seminar, three hours. Topics selected from field of historical Germanic phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of Gotic development, 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 recent 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. Also relates to philosophic texts such as Hegel's Phänomenologie des Geistes or its relation to historical events such as French and American Revolutions. Letter grading.


261. Seminar: Comparative literature. (4) Seminar, three hours. In-depth analysis of one particular issue in post-1945 German literature and culture. Letter grading.

262. 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. Enforced requisites: course C142 or C238. Readings, discussion, analyses, and validation procedures with sign-based linguistics, cognitive grammar, and discourse-functional approaches to language. Consideration of impact of grammaticalization theory on various nonformal approaches to synchronic linguistics. Discussion of work by Comrie, Monnot, and Arndt 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 or two other thinkers, as determined by instructor, and presentation by student. S/U or letter 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 or two other thinkers, as determined by instructor, and presentation by student. S/U or letter grading.

266. 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, and design of syllabi for basic foreign language courses. S/U grading.

595. 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.

596. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination preparation. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination preparation. S/U grading.

598. Research for and Preparation of MA Thesis. (4) To be arranged with faculty member who directs thesis research. May be repeated for credit. 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 equal 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 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.

24A. Italy through Ages in English: Saints and Sinners in Early Modern Italy. (3) Lecture, four hours. Discussion, one hour. Examination of issues of cultural hegemony, political and religious freedom, and doctrinal conflict through Italy’s early modern literary and artistic production. Texts may include Dante’s Divine Comedy, Boccaccio’s Decameron, Saint Catherine’s letters, Machiavelli’s The Prince, and Galileo’s scientific writings. Artworks may include those of Raphael and Michelangelo as well as Bernini’s sculptures. P/NP or letter grading.

24B. Italy through Ages in English: Modern and Contemporary Italy. (5) Lecture, four hours; discussion, one hour. Cultural and political developments from 18th to 21st centuries. Reading topics include Beccaria and opposition to death penalty and absolutism; Garibaldi, Italian Risorgimento, national unification, and liberation; Lombroso and criminology in new Italy; Mussulman and Fascist; Gramsci and Communism; Italian Catholicism; Berlusconi and media; migration and today’s multiethnic Italy. Assigned works include relevant literature, art, music, and film, future and fascist art, and organized crime and film. P/NP or letter grading.

46. Italian Cinema and Culture in English. (5) Lecture/screenings, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation’s prime artform, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Focus on cinema and political, social, and religious movements. 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 the Renaissance. Leading philosophical, religious, and sociopolitical issues in Europe, examined in authors such as St. Francis, Dante, Boccaccio, Petrarch, Lorenzo de’ Medici, Machiavelli, Castiglione, Ariosto, and Tasso. 50B. Enlightenment to Postmodernity. Comparative study of major literary texts and their adaptations into different formats, including theatre, opera, and film. Works by Goldoni, Gozzi, Mascalci, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of self and society.

77. Encounters between Christianity, Islam, and New Worlds in Age of Discovery. (5) Lecture, four hours; discussion, one hour. Examination of cultural, religious, and racial differences in early modern era of Italy. Attentive to 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 anti-colonial polemics. 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 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.

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. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of one 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 modern republic, delineated through narrative and cinema in historical context. P/NP or letter grading.

102C. Roots of Western civilization; social and artistic achievements of communal society; Marco Polo, Dante, Boccaccio, Giotto, rise of Italian merchant class, 15th century. Renaissance of human genius; crucial period between Machiavelli and Galileo; leading Italy and Europe to scientific revolution. 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 medieval era to Renaissance and baroque. Emphasis on critical methods and skills for analyzing and interpreting wide range of Italian texts and cultural formations in their historical context and in comparison to contemporary and transnational views. Representative authors may include Vico, Goldoni, Alfieri, Beccaria, Rossetti, 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, theater, art, 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, Rossetti, Carriera, Piranesi, Tiepolo, Leopardi, Manzoni, Pirandello, Aleramo, Marinetti, Bocchioni, Modigliani, De Chirico, Calvino, Ortese, Pasolini, Franca 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 geniuses, particularly of his masterpiece, Divine Comedy, the archetypical medieval journey through the afterworld. P/NP or letter grading.

113. Dante’s La Divina Commedia. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Study of medieval philosophy, religion, and politics in La Divina Commedia, the greatest literary achievement of the age. P/NP or letter grading.

114B. Middle Ages: Medieval Humor, Morality, and Society. (4) Lecture, three hours. Novelties 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 Quattrocento and its representatives in arts and humanistic thought (i.e., Mantegna, Botticelli, Pico, Valla, and Ficino). 116B. Power and Imagination in Renaissance. Study of artistic world 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 Medici, Gonzaga, and D’Este courts.

120. Modern and Contemporary Literature. (4) Lecture, three hours. Analysis of novels, short fiction, poetry, and drama in connection with modern and contemporary thought, politics, and culture. Authors may include D’Annunzio, Aleramo, Pirandello, Ungaretti, Montale, Pasolini, Ortese, Morante, Girzund, Calvino, Fo, Eco, Celati, and Tabucchi. P/NP or letter grading.

122. Modern Italian Cultural Studies. (4) Seminar, three hours. Examination of 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 gastronomic documents, 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 the slow food movement. Examination of tradi-
works by both Northern European and African authors about Africa and southern Italy. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) Same as Gender Studies M158.) Lecture, three hours; discussion, one hour. Analysis of gender roles, institutional and social aspects of 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 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 of significance. May be repeated for credit 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.

191. Variable Topics Research Seminars. Italian Studies. (4) Seminar, three hours. Research seminar with focus on themes and issues outside uniquely Italian literature topics covered in regular departmental undergraduate courses. Reading, discussion, and development of culminating project. May be repeated once for credit. P/NP or letter grading.

195. Community or Corporate Internships in Italian. (4) Tutorial, three 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 experience. May be repeated for credit. Individual contract required. Letter grading.

199A. Directed Research in Italian and Italian and Special Fields. (4) Tutorial, to be arranged. 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. Letter grading.


205. Studies in Criticism and Theory. (4) Seminar, three hours. History, theory, and practice of criticism. Presentation of major trends and applications of current and fundamental currents in aesthetics and criticism from Plato and Aristotle to present, including thematic and genre criticism, structuralist approaches, and feminist criticism. 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-216F. 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. Content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Benvenuto.


218A-218D. Studies in 18th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 218A. Vico. 218B. Affieri. 218C. Godiena. 218D. Lecture, three hours. S/U or letter grading. 218A. 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. Foscolo. 219B. Leopardi. 219C. Manzoni. 219D. Variable Topics. Variable-content seminar on themes and issues of 19th-century literature, with coverage of authors such as Carducci, Tommaso, or Nievo.


221A-221E. Studies in 20th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 221A. Variable Topics. Variable-content seminar on themes and issues of 20th-century literature, with coverage of authors such as D’Annunzio, Verga, Marinetti, and Pirandello. 221B. Contemporary Poetry. Analysis of key poets of international significance from World War II—Ungaretti and Montale. Thorough examination of movements and individual poets active in the 1960s and 1970s. 221C. 20th-Century Narrative to World War II. Analysis of the novel as a form and the narrative pattern (Gabriele D’Annunzio) and analysis of radical innovations brought about by such towering figures as Pirandello, Svevo, Bernari, Marinetti, etc. 221D. 20th-Century Narrative since World War II. In-depth exploration of some major works that have made contemporary Italian literature famous throughout the world, with special emphasis on study of formalistic modes adopted by the neo-avant-garde.

221E. Pirandello and Contemporary Theater. Thorough reading of theatrical texts, accompanied by analysis of how the plays have been realized on stage by important directors including Strehler, Werther, Fontana, 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. 222B. Phonology. Principal sound changes from late Latin to main Romance dialects. 222B. Morphology and Syntax. 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 its normative vantage. Topical emphasis may vary annually, but core progression includes phonology (e.g., syllable types, prosodic patterns, phonetic phonology), moves through morpho-lexical constituents, passing to sentence sequences (coordination, ellipses, etc.). S/U or letter grading.

224. Italo-Romance Dialectology. (4) Lecture, three hours. Differentiation of late spoken Latin into myriad varieties spoken in Italy. Attention to discrete language types (e.g., Southern, Southwestern, or Sardinian). Consideration of present-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 country in 1861. Questione della lingua, general acceptance of Florentine speech, and its evolution into national language. S/U or letter grading.


M241. Seminar: Political Geography of Italy. (4) (Same as Geography M232.) Seminar, three hours; reading period, two hours. Themes in political geography of 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. Copious discourse animating Italian society articulated through class, gender, and ethnolinguisitc groups to be studied across range of texts, some selected from literary canon, but others purely oral (tales, songs, proverbs, curses, folktales, narratives, 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 conditions in either medieval/Renaissance or contemporary times. 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, with focus on its development from its origins through Fascist times to neorealism, its legacy, different genres, and contemporary scene. S/U or letter grading.

298. Variable Topics in Italian Studies. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Seminar focusing on themes and issues outside uniquely Italian literature topics covered in regular departmental graduate courses.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnell employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.
459A–459B. Teaching Italian at College Level. (2 to 4 each) Seminar, to be arranged. S/U grading. 459A. Study methods in preparation for teaching Italian at college level, with emphasis on teaching proficiency-oriented instruction. May not be applied toward MA core course requirements. 459B. Continuation of course 459A; study of contemporary issues in Italian language pedagogy. 459C. Effective uses of technology in foreign language classroom. Project-based seminar in which students develop materials for classroom instruction as well as an electronic teaching portfolio.

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.

566. Directed Individual Studies. (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.
7. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.
11. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.
14. Friat 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.
15. Heroic Journey in Northern Myth, Legend, and Epic. (4) Lecture, three hours. Not open for credit to students with credit for course 40W. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folklore, and epic, including Nibelungenlied, Völsunga Saga, Eddas, and Beowulf. Cultural and historic backgrounds to texts. P/NP or letter grading.
16. Heroic Journey in Northern Myth, Legend, and Epic. (4) Lecture, three hours. Not open for credit to students with credit for course 40W. All readings in English. Comparison of journeys of heroes. Readings in mythology, legend, folklore, and epic, including Nibelungenlied, Völsunga Saga, Eddas, and Beowulf. Cultural and historic backgrounds to texts. P/NP or letter grading.
17. Student Research Programs. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual honors contract required. Individual honors content noted on transcript. P/NP or letter grading.
18. Student Research Programs. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual honors contract required. Consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

C131. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Snorri Sturluson’s Saga and Eddas. Concurrently scheduled with course C231. Letter grading.

C132A. 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. Concurrently scheduled with course C132A. Letter grading.

133C. Social Network Analysis and Icelandic Fami- ly Saga. (4) Seminar, three hours. Exploration of how character interactions can be used as basis for developing social network view of stage on which saga actors play. Students will model saga dynamics as social network models and learn about metrics and analytical approaches from social network analysis (SNA) that deeper understanding of saga actions. SNA provides additional opportunity to explore hypothetical situations and recognize alternative social pathways that may have led to other types of formations. Students should bring laptop that is chiefly preserved in two traditions called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/NP or letter grading.

C137. Old Norse Literature and Epic. (4) Seminar, three hours. Overview of major gods and goddesses, heroes and heroines, narratives and adventures that make up lore collectively referred to as Scandinavian, for Norse, and Germans. Literature that is chiefly preserved in two traditions called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/NP or letter grading.

C141A. 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 novelia texts from Scandinavian literary canon, with stories by authors such as Hans Christian Andersen, Jens Peter Jacobsen, Aksel Holmsen, Amalie Skram, Sigbjørn Obstfelder, Knut Hamsun, Isak Dinesen, and Ruben Palm. Palma of literature of Scandinavian literature and culture. Palma of literature of Scandinavian literature and culture. P/NP or letter grading.

142A. Introduction to Nordic Theater and Drama. (4) Lecture, three hours. Examination of artistic legacy of Henrik Ibsen and August Strindberg in context of emergence of modern Nordic theater and drama as whole, as well as important contributions of their contemporaries and successors. Readings include plays, letters, speeches, and memoirs by Ibsen, Strindberg, Henrik Ibsen, August Strindberg, Per Lagerkvist, Kjeld Abell, Eva-Lisa Mannen, Hrathnithur Hagalin Gudmundsdóttir, and Jonas Hassen Khemiri. P/NP or letter grading.

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 that Scandinavian writers could be successfully translated into many languages, others followed. Scandinavian authors, working with traditional rules of crime fiction, also analyze and often criticize values and cultures of their societies. Reading of these works as representations of critical social and intellectual problems not only in Scandinavian, but in Europe and world at large. P/NP or letter grading.

C145A. Henrik Ibsen. (4) Seminar, three hours. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C245A. P/NP or letter grading.

C145B. Knut Hamsun. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun and other 19th and 20th-century Scandinavian writers who explored themes of nature as modern idyll. May be concurrently scheduled with course C245B. P/NP or letter grading.


C156A. 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 prominent Swedish filmmaker and his influence on contemporary cinema. May be concurrently scheduled with course C166A. P/NP or letter grading.

C156C. Carl Dreyer. (4) Seminar, three hours. Exploration of selected works of realism, naturalism, and symbolism in late 19th-century Scandinavian literature and art. Concurrently offered with course C255. P/NP or letter grading.

156. Scandinavian Literature of 20th Century. (4) Seminar, three hours. Readings and discussion of selected works of modern Scandinavian literature from beginning of century to present. P/NP or letter grading.

157. Contemporary Nordic Literature. (4) Seminar, three hours. Reading and analysis of selected texts by major 20th-century Swedish authors. P/NP or letter grading.


163A. Introduction to Danish Cinema. (4) Seminar, three hours. Introduction to history of cinema in Denmark in terms of fundamental concepts and a study of film. Deliberately broad and historically centered approach to development of cinema in Denmark rather than focus on films of particular directors or topics. Theoretical readings from important critics, including 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 C256A. 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 Ingmar Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Mai Zetterling, Vigot Sjoman, Jan Troell, Lukas Moodysson, and Isolde Fahlberg. 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 C263B. P/NP or letter grading.

C163C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancred Ibsen, Anne Skouen, Edith Carlmar, Niels Gaa, Erik Skjoldbjærg, Bent Hämmer, Khalid Hussain, and Petter Naess. May be concurrently scheduled with course C156A. 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 historical and cultural contexts. May be concurrently scheduled with course C260. 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 prominent Swedish filmmaker and his influence on contemporary cinema. May be concurrently scheduled with course C166A. P/NP or letter grading.

C166C. Carl Dreyer. (4) Seminar, three hours. Exploration of selected works of realism, naturalism, and symbolism in late 19th-century Scandinavian literature and art. Concurrently offered with course C255. P/NP or letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 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.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 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.
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 the longest extant medieval prose literature. Texts in English, with selected cases of Old Norse sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.

C233B. Advanced Old Norse Prose. (4) Lecture, three hours. Requirements: course 132B. Readings of major saga texts. Also, secondary sources that bear on specific issues in Old Norse literature and medieval Scandinavian history. S/U or letter grading.


C235A. Advanced Old Norse Poetry. (4) Lecture, three hours. Requirements: course 132B. Readings of mythological and heroic poems from Poetic Edda. Secondary sources used may include poems from Snorri Sturluson. S/U or letter grading.

C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C137. Graduate students do additional readings and write more extensive research papers. Letter grading.

C241A. Theory of Scandinavian Novel. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Analysis of predominant 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. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C245A. Henrik Ibsen. (4) Seminar, three hours. 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 as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C245B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Readings and discussion of selected works by Knut Hamsun. May be concurrently scheduled with course C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C246A. August Strindberg. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Analysis of Gustaf Strindberg’s portrayals of marital conflict reflected and shaped literary representation of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and world contexts. May be concurrently scheduled with course C146A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C247B. Søren Kierkegaard. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of Søren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C147B. S/U or letter grading.

C255. Modern Breakthrough. (4) Seminar, three hours. Readings and discussions of selected works of realism, naturalism, modernism, and post-modernist Scandinavian literature and art. Concurrently offered with course C155. S/U or letter grading.

C263A. Introduction to Danish Cinema. (4) Seminar, three hours. Introduction to history of cinema in Denmark, as well as to some fundamental concepts in study of film. Deliberately broad and historically centered approach to development of cinema in Denmark rather than focus on films of particular directors or topography of a particular generation. Film screenings and discussion of important films and directors. May be concurrently scheduled with course 163A. S/U or letter grading.

C263B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema from silent era to present. Filmmakers include auteurs in international canon, such as Victor Sjöström, Mauritz Stiller, and Ingmar Bergman, as well as other Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Max Ophüls, and Josef Fares. Development of Scandinavian high art cinema movement, and issues of auteur filmmaking. May be concurrently scheduled with course C263B. S/U or letter grading.

C263C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Jan Troell, Knut Hamsun, and Petter Naess. Particular focus on popular genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C263C. S/U or letter grading.


C273. Study of Oral Tradition: History and Methods. (4) Same as English M205A. 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 oral and modern literary theories. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of Charles Hammarberg and other oral tradition scholars. May be concurrently scheduled with course C173. S/U or letter grading.

C274A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own writings on cinema. All films have English subtitles or are subtitled. Concurrently scheduled with course C174A. S/U or letter grading.

C274B. Introduction to Swedish Cinema. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of Sweden’s masters of Nordic cinema, but of world cinema as well. Focus on films that Dreyer made during near half century between 1919 and 1964. Contextualization of silent and sound works of this most personal of film-makers within multiple frameworks: Danish national film industry, transnational European cinema, and issues of auteur filmmaking. Readings by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own writings on cinema. All films have English subtitles or are subtitled. Concurrently scheduled with course C174B. S/U or letter grading.


C276A. Søren Kierkegaard. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of Søren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C147B. S/U or letter grading.

C278C. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Analysis of popular genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C278C. S/U or letter grading.

C375. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Directed studies. May be concurrently scheduled with course C175. 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 and culture through readings of current literary and cultural production 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.

C375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel are employed by ten graduate students, or fellow. Teaching apprenticeship under active guidance of mentor while facilitating USIE 88S course.
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 social movements, assimilation, and destructive organized anti-Semitism) from late-19th century to present. Exploration of transformational themes in depth through viewing of selected films, readings, research, and weekly papers, and in-class discussions. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, 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.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. 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 credit. 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 a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A. Elementary Yiddish. (4) Lecture, four hours. Introduction to grammar; instruction in listening, speaking, reading, and writing skills. P/NP or letter grading.


102B-102C. Intermediate Yiddish. (4-4) Lecture, three hours. Requisite: course 102A. Course 102B is requisite to 102C. Grammatical exercises, reading and linguistic analysis of texts, conversation. P/NP or letter grading.


121C. Special Topics in Yiddish Literature 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 language and culture, with focus on classic Yiddish films and documentaries as integral tools for accessing culture associated with this heritage language. Viewing and discussion to gain deeper understanding and appreciation of complexity and scope of Yiddish culture and in particular of annihilated Yiddish civilization of 20th century. These films represent most accessible way available to hear Yiddish spoken in fluent, natural manner. P/NP or letter grading.


131C. Special Topics in Yiddish Literature. (4) Lecture, three hours. Requisite: course 131A or 131B. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. 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 more specialized investigation of topics in Yiddish, with scheduled meetings to be arranged between faculty member and student. Assignment and topics depend on 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, Vice Chair, Academic Affairs
Michael A. Rodriguez, MD, MPH, Vice Chair, Global Health
Steven J. Shoptau, MD, Vice Chair, Research
Denise K.C. Sur, MD, Vice 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 teaching program 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 during other summer projects supported by the dean’s office.

For more details on the Department of Family Medicine, see the department website.

**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**

19. Directed Research in Family Medicine. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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**Faculty Committee**

Jonathan M. Auroux, PhD (Earth, Planetary, and Space Sciences)
Kathleen Bawn, PhD (Political Science)
Scott H. Chandler, PhD (Integrative Biology and Physiology)
Juliana K. Gondek, MM (Music)
Jennifer A. Jay, PhD (Civil and Environmental Engineering, Environment and Sustainability)
Kathleen L. Komar, PhD (Comparative Literature, European Languages and Transcultural Studies)

**Overview**

The Fiat Lux curriculum provides an intellectual space for faculty and students to explore new and interdisciplinary areas of topics within an intimate seminar setting.

The Fiat Lux Seminar Program is a unique educational initiative that allows faculty to broadly explore any topic and subject area while also connecting with first-year students. The Fiat Lux subject area and Fiat Lux 19 provide faculty with an intellectual space to explore new or interdisciplinary areas and topics that may be beyond their home academic department. Under the course number 19, Fiat Lux seminars may be offered in all academic departments.

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**FIAT LUX**

**College of Letters and Science**

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Los Angeles, CA 90095-1571

Fiat Lux
310-267-5430

Department e-mail
Scott H. Chandler, PhD, Chair

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**Faculty Committee**

Jonathan M. Auroux, PhD (Earth, Planetary, and Space Sciences)
Kathleen Bawn, PhD (Political Science)
Scott H. Chandler, PhD (Integrative Biology and Physiology)
Juliana K. Gondek, MM (Music)
Jennifer A. Jay, PhD (Civil and Environmental Engineering, Environment and Sustainability)
Kathleen L. Komar, PhD (Comparative Literature, European Languages and Transcultural Studies)

**Overview**

The Department of Film, Television, and Digital Media is dedicated to advancing the art and craft of media making and research in an increasingly complex and technology driven world. The department believes that innovative filmmaking and a critical understanding of media culture are necessary catalysts for social change. The department 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.

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through the collaborative arenas of media creation and intellectual inquiry. For current or specific information about the programs and faculty members, see the department website.

Undergraduate Major

Film and Television BA

The undergraduate Film and Television major encourages development of a personal vision that incorporates creative, practical, intellectual, and aesthetic values. Within the context of a liberal arts education, the program provides a broad background in the field and in the diversity of film and television practice, including courses in history and theory, critical thinking, animation, screenwriting, and the fundamentals of film, video, and television production.

Capstone Major

The Film and Television major is a designated capstone major. Undergraduate students are required to complete one departmentally sponsored internship course as well as coursework related to the senior thesis concentration area. All courses, including capstone senior thesis projects, involve work shopping individual projects. Group participation in the creation and production of each student’s project is core to the curriculum. Specific student learning objectives vary based on concentration area.

Learning Outcomes

The Film and Television major has the following learning outcomes:

- Production of scholarly and artistic work in the areas of history, criticism, and theory of film, television, and digital media
- Mastery of fundamentals of preproduction, production, and postproduction of film, television, and digital media
- Demonstrated advanced understanding of one or more areas of study in cinema and media studies, filmmaking, screenwriting, animation, digital media, and producing

Entry to the Major

Admission

Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students can be accepted each year. In addition to the UC Application for Admission and Scholarships, first-year and transfer applicants must submit a School of Theater, Film, and Television supplemental application. For information about the supplemental application, see the major website.

Transfer Students

Transfer applicants to the Film and Television major with 90 or more units must meet UCLA transfer requirements and, before arriving at UCLA, must complete the School of Theater, Film, and Television general education requirements by either (1) taking college courses that satisfy the school general education requirements or (2) completing the Intersegmental General Education Transfer Curriculum (IGETC) at a California community college or (3) achieving UC reciprocity through completion of general education requirements at another UC campus while a student there.

In addition to the UC Application for Admission and Scholarships, transfer applicants must submit a School of Theater, Film, and Television supplemental application. For information about the supplemental application, see the major website.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Film and Television 4, 6A, 10A, 33, 51, 84A, and one course from Theater 10, 15, 20, 28A, 28B, 28C, or 30.

The Major

Required: Film and Television 101A, 106B or 106C, 134, 150, 154, 155, 163; one cinema and media studies elective from 107, 108, 109, M111, 112, 113, 114, M117, or 122N; one capstone departmentally sponsored internship (course 195); and a senior concentration (20 units) of advanced film coursework selected from among one or more of the following areas of study, including at least two courses from within one area:

- Screenwriting: Film and Television 135A, 135B, 135C.
- Producing: Film and Television 146, C147, 183A, 183B, 183C, 184B.
- Animation: Film and Television C181A, C181B, C181C.
- Digital Media: Film and Television C142, C144, C145, C148.

Policies

The Major

Courses taken to satisfy the senior concentration may not also be applied toward other course requirements in the major.

Students should be mindful of the exigencies inherent in filmmaking and be prepared to meet the additional demands of time and costs.

Students are required to perform assignments on each other’s projects. In addition, the department reserves the right to hold for its own purposes examples of any work done in classes and to retain for distribution such examples as may be selected.

Undergraduate Minor

Film, Television, and Digital Media Minor

The Film, Television, and Digital Media minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of film, television, and digital media as art forms with social, political, cultural, and economic significance. The minor consists of a selection of lower and upper-division courses that introduce students to the practice and critical study of film, television, and digital media.

Admission

To enter the minor students must have declared a major other than the Film and Television 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. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or College.

The Minor

Required Lower-Division Courses (8 to 11 units): Two courses selected from Film and Television 4, 6A, 10A, 33, M50, 51, or 84A.


Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. All units applied toward the minor must be taken in residence at UCLA. Film and television courses taken at other institutions cannot be applied toward the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Film and Television MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA.
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; preparation, one hour. Enforced requisite: course for students with credit for course C132/C430. Structural analysis of feature films and development 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, (2–3) Lecture, three hours; preparation, one hour. Students develop original pilot episode, write and present original pilot episode, and create series treatment. Offered in summer only. P/NP or letter grading.

M50. Introduction to Visual Culture, (8) (Same as English 55SC). 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.

51. Digital Media Studies, (6) 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, focusing on techniques, including theater, film, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

75. Lighting for Film and Television, (2) Laboratory, 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 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.

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

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 and television industry. Letter grading.

102A-102B-102C. Senior Symposium, (1–1–1) Laboratory, three hours. Enforced requisite: course 101A. Course 102B is enforced requisite to 102C, which is enforced requisite to 102B. 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 and television industry. Letter grading.

104. Film and Television Symposium, (1 or 2) Laboratory, three hours. Structured forum in which students discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. Offered in summer only. Letter grading.

106B. History of European Motion Picture, (6) Lecture/screenings, eight hours; discussion, one hour. Study of European motion picture both as developing art form and as medium of mass communication. 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 approach in 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. Screening, three hours. In-depth study of specific film and video, and digital media. May be repeated for maximum of 12 units. Letter grading.

111. Women and Film, (6) (Same as Gender Studies M111) Lecture, eight hours; discussion, one hour. Historical issues connected to women and cinema that may include authorship, stardom, female genres, and images of women in Hollywood cinema, alternative cinema, and independent cinema from silent era to present. Letter grading.

112. 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., Western, gangster cycle, musical, 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 Central America M117) Lecture/screenings, five hours; discussion, one hour. Study of specific film genre (e.g., Western, gangster cycle, musical, silent epic, comedy, social drama). May be repeated for credit with topic change. P/NP or letter grading.
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.


122D. Film Editing: Overview of History, Technique, and Practice, (4) Lecture, three hours. Exploration of film editing techniques, how they have evolved, and continue to evolve. Examination of history of editing, as well as trends, terminology, and workflow. P/NP or letter grading.

122E. Digital Cinematography, (4) Lecture, three hours. With lectures, screenings, and demonstrations, study of principles of digital cinematography. How tools and techniques affect visual storytelling process. Topics include formats, aspect ratios, cameras, lenses, special effects, internal menu picture manipulation, lighting, composition, coverage, high definition, digital exhibition, filtration, multiple-camera shooting. P/NP or letter grading.

122W. Editing for Animation Series, (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 many formats. Business model has changed radically over past five decades, as have types of shows that have been created. Designed to put shows in historiographic 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. Consideration of the factors that have led to this dominance on animation and society. Letter grading.

122M. Film and Television Directing, (4) Lecture, three hours. Through discussions, screenings, demonstrations, and guest, exploration of script, previsualiza- tion, and execution of directing: exploring camera coverage, its relationship to story, practical on-set directing, and directing for camera. P/NP or letter grading.

122N. History of Animation in American Film and Television, (5) Lecture, six hours. Survey of art of ani- mation in America from its precinema origins to recent films of Disney, Pixar, DreamWorks, Ghibli, and others. Place of animation in pop culture, racial imagery and ethnic stereotypes, growth of art form, and how it re- flects 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 and the history of women’s studies in media literacy so they acquire necessary skills to critically interrogate film as medium of communication and to appreciate how film provides lens to examine some of most crit- ical issues of our time. Development of understanding of transnationality to examine how circulations of capital, labor, and commodities transact, render problem- atic, and sometimes reinforce national borders. Exam- ination of moviemaking and representation representing these conditions of transnationality. How films enable understanding of historical and contemporary relationships between mobility, coercion, and migra- tion; colonialism; Orientalism; geopolitics, and sexuality; cultural identity and dias- pora; transnational conceptions of sexual desire and embodiment; immigration and religious difference; and criminalization of racial difference. P/NP or letter grading.

126. Acting for Film and Television, (4) Studio, six hours. Projects in acting for television, video, and film. May be repeated twice for credit. P/NP or letter grading.

128. Media and Ethnicity, (4) Lecture, four hours. Uti- lizing Asian American experience, exploration of impact and uses of media on contemporary Asian American communities. Role of media and techniques of media influence, how film provides lens to examine some of most crit- ical issues of our time. Development of understanding of transnationality to examine how circulations of capital, labor, and commodities transact, render problem- atic, and sometimes reinforce national borders. Exam- ination of moviemaking and representation representing these conditions of transnationality. How films enable understanding of historical and contemporary relationships between mobility, coercion, and migra- tion; colonialism; Orientalism; geopolitics, and sexuality; cultural identity and dias- pora; transnational conceptions of sexual desire and embodiment; immigration and religious difference; and criminalization of racial difference. P/NP or letter grading.

C109A. Contemporary Topics in Theater, Film, and Television, (2) (Same as Theater CM209.) Lecture, two hours; screenings, two hours. Limited to junior, sen- ior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, pro- duction, and performance. Overview of individual con- tributions in collaborative effort; examination of dis- tinctiveness and interrelations among these arts. Indi- vidual units include participation of leading members of the theater, film, and television professions, to be re- peated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.

131. Introduction to Television Writing, (6 or 8) Lecture, three hours. Introduction to television pilot format, coverage, and production. Topics include: series concept, pilot 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.

132. Television Writing Workshop, (6) Laboratory, three hours. Students outline first 10 pages of pilot for original one-hour drama or dramedy, or half-hour comedy series. Examination of topics such as for sketch, talk, and other hybrid comedic television shows. Review of various types of parody including for sketch, talk, and other hybrid comedic television shows. Emphasis on assembly of creative team and analysis of medium by looking at its history, embedded ideology, and sociopolitical consequences. May be re- peated once for credit. Concurrently scheduled with course C245. Letter grading.

146. Art and Practice of Motion Picture Producing, (4) Lecture, three hours. Exploration of role of pro- ducer as both artist and business person. Compara- tive 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.


C148. Advanced Digital Media Workgroup, (4) Lab- oratory, two hours; discussion, four hours. Designed for students with previous laboratory course experi- ence to provide opportunity to create larger-scale digi- tal media works with advanced software tools and techniques in small production-oriented creative work- shop environment. May be repeated twice for credit. Concurrently scheduled with course C248. Letter grading.

150. Cinematography, (4) (Formerly numbered 52.) Lecture, three hours; laboratory, three hours. Requi- site: course 101A. Corequisite: course 154. Limited to Film and Television majors. Introduction to motion im- aging photography for thorough understanding of fund- damental tools and principles of cinematography to create images that support and enhance story of film, achieve comprehension of principles of motion im- aging photography through lectures, discussions, and screenings, develop skills of cinematographer by shooting exercises during laboratory period, and ac- quire appreciation of art of cinematography. Language and theory of image construction interrelated, as well as image analysis and deconstruction. Letter grading.

151. Introduction to Experimental Filmmaking, (4) Lecture, three hours; laboratory, to be arranged. Tech- niques of image manipulation, design, and art direc- tion. Production and cutting (no longer than three minutes). 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 princi- ples and practices of film and television sound re- cording, including supervised exercises. P/NP or letter grading.
C152C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Enforced requisites: courses 101A, 185. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, exploration of digital audio tools and techniques to today's modern workflow. 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 requisites: courses 52, 101A, 185. Limited to Film and Television majors. Introduction to principles and tools of lighting used in visual storytelling, including storyboards, directing, 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. Requisite: 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 image and synchronous sound. Letter grading.

C154B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation: submission of rough project or preproduction of work of another director. Enforced requisites: courses 54, 185. Limited to Film and Television majors in postproduction phase with advanced knowledge of organization, rhythm, and technical aspects of postproduction process. Students may also propose to edit significant scene given to them by instructor. Concurrently scheduled with course C454B. Letter grading.

155. Introduction to Digital Media and Tools. (4) Lecture, six hours; laboratory, one hour. Enforced requisite: course 101A. Limited to Film and Television majors. Introduction and exercises in basic concepts and software of virtual production environments and digital postproduction tools. Letter grading.

C157. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Requisite: course 52. Limited to Film and Television majors. Lectures, supervised exercises, and screenings. Analysis of lighting in stage and 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 majors. Letter grading.

158. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Requisites: courses 52, 185. Limited to departmental majors. Through discussions, demonstrations, field trips, and laboratory exercises, interpretation of digital workflow, transitions and mastery of 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 C417. Letter grading.


180A. Animation Fundamentals. (5) Lecture, six hours; laboratory, six hours. Fundamentals of animation through exercises and preparation of short animated film. Offered in summer only. Letter grading.

180B. Writing for Animation. (4) Lecture, two hours; laboratory, six hours. Analysis and practice of effective visual storytelling through creation of three production storyboards. Offered in summer only. Letter grading.

180C. Stop Motion Fundamentals Workshop. (2 to 4) Lecture, six hours; laboratory, six hours. Exercises designed to teach technical skills, processes, and principles of motion and timing. Use of range of materials, building animation performances in split-second increments arranged to give illusion of movement. Exploration of early history of stop motion. Collaborative creation of stop-motion film with each student directing and animating portion of film. Offered in summer only. Letter grading.

181A. Introduction to Animation. (5) Lecture, three hours; laboratory, six hours. Drawing experience not required. Fundamentals of animation through preparation of short animated film. Concurrently scheduled with course C417 or letter grading.

181B. Writing for Animation. (4) Lecture, six hours; studio, to be arranged. Requisite: course C181A or consent of instructor. Research and practice in creative writing and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C441B. P/NP or letter grading.

182. Power, Identity, and Justice. (4) Lecture, three hours. Examination of how politics, economics, labor, and identity intersect and affect representation, employment, and industry cultures, especially of groups long underserved in mainstream film, television, and media industry. Offered in summer only. P/NP or letter grading.

183A. Producing I: Film and Television Development. (4) Lecture, three hours. Open to nonmajors. Critical analysis of entertainment industry and practical approach to understanding and implementing producer's role in development of feature film and television scripts. Through scholarly and trade journal readings, case studies, script analysis, and select guest speakers, exposure to various entities that comprise feature film and television development process. Basic introduction to story and exploration of proper technique for evaluating screenplays and teleplays through writing of coverage. May be taken independently for credit. Letter grading.

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 perspective, while studying industrial processes through which movie and television properties are financed and exploited throughout all revenue streams. May be taken independently for credit. Letter grading.

183C. Producing III: Marketing, Distribution, and Promotion. (4) Lecture, three hours. Open to nonmajors. Marketing and distribution of feature films across multiple exhibition platforms and subsequent reception and consumption by audiences. Focus on establishing relationships between distributor, 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) Lecture, three hours. Examination of evolving economic structures and business practices in contemporary Hollywood television industry, with emphasis on operations of networks and cable companies, series development, marketing, and network branding from 1947 to present. Letter grading.

185. Intermediate Undergraduate Film Production. (8) Laboratory, six hours. Requisites: courses 52, 154, 155, 163. Limited to Film and Television majors. Instruction and exercises in all stages of film production. Letter grading.

C189A. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 185. Course C186A is requisite to 186B, which is requisite to 186C. Introductory viewing and discussion of selected documentary and instruction in professional 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.

C189B. 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 C403B. Letter grading.

C189C. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course C186A. In-depth 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.

190. Global Film and Television Development. (6) Lecture, three hours. Exploration of film and television development practices in key international markets. Introduction to key international markets, prominent global development and production entities, and their properties and development strategies. Designed to blend theory with practical application. Students read both academic literature and trade publications addressing development practices in the global industry, gain understanding of mechanisms that drive development in domestic and international territories. P/NP or letter grading.

187B. Domestic and Global Entertainment Industry Careers and Strategies. (3) Lecture, three hours. Exploration of select film and television career paths and strategies in U.S. and major international markets. Introduction to typical and atypical career paths and strategies of producers, screenwriters, directors, and
creative executives in U.S. and abroad. Students take
Lecture, three hours; discussion, one
tal Media. (4)
grading.
Asia, and Central and South America. P/NP or letter
Covers streaming markets in North American, Europe,
national coproduction partners and developing proj-
mestic and international fiction and nonfiction devel-
processes and strategies to work with
Moment. Culinaring paper or project required. May be taken for maximum of 8 or
Individual contract required. P/NP or letter

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
Designed for graduate students. Examina-
tudy and search methods, techniques, and
Focussing features, as approach to learning what makes
Visual essays and on methods of research for this new
field from its beginning in 1895 to transition to sound
viewings in terms of genre, national cinemas, and
neorealism, French film of 1930s, French New Wave and crime film, Weimar cinema, and
206A. Seminar: Silent Film. (6)
Seminar, three hours; film screenings, two to four hours. Discussion of silent film from its beginning in 1895 to transition to sound cinema in 1927 to 1930. Film viewings discussed in terms of genre, national cinemas, and directors. Readings on film historical and theoret-
contrast of limits and advantages of print versus audio-visual publication. Letter grading.
208C. Seminar: Contemporary Film Theory. (6)
Seminar, three hours; film screenings, four to six hours. 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 his-
tional production, structure, style, use, and relation to contemporary culture. S/U or letter grading.
210. Viewing and Reading Media. (4)
lecture, three hours; media viewings, three hours. Study engages media originating on different platforms and deriving from different modes of production, cultural locations, and value systems. Critical approach con-
siders various components of what can be read in in-
dividual work including form and aesthetics, organiza-
early efforts. Letter grading.
211A. Seminar: Historiography. (6)
Seminar, three hours; film screenings, four to six hours. Designed for 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 func-
thesis or report of their experience. May be repeated for
Individual contract with supervising faculty member required. P/NP or letter grading.
195CE. Corporate Internships in Film, Television, and Digital Media. (4)
Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Corpo-
Covers streaming markets in North American, Europe,
cultural locations, and contemporary media. Examination of creative
development processes and strategies for

201B. Seminar: Media Industries and Cultures of
Seminar, three hours; film screenings, four to six hours. Des-
cessing, distribution, industrial organization, creative
work, new technologies, and evolving relations be-
tween fans and producers in digital economy. Letter grading.
2018. Seminar: Media Industries and Cultures of
Seminar, three hours; film screenings, three hours. Examination of contem-
prary production practices and research in newmedia practices, including innovations in marketing, li-
censing, distribution, industrial organization, creative
work, new technologies, and evolving relations be-
tween fans and producers in digital economy. 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 methods (ethnographic, so-
ciologically, critical-economic, geographic) that have
been used to study film and television production practices as cultural, social, and industrial phe-
nomena, as basis for individual student research proj-
cts. Letter grading.
2016B. Seminar: Selected Topics in American Film History. (6)
Seminar, three hours; film screenings, four to six hours. Limited to junior/senior USIE facilitators. Indi-
vidual 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.
188B. Individual Studies for USIE Facilitators. (2)
Tutorial, to be arranged. Enforced corequisite: Honors Colleageum 101E. Limited to junior/senior USIE facilita-
tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.
188A. Individual Studies for USIE Facilitators. (1)
Tutorial, to be arranged. Enforced corequisite: course 188A. Enforced corequisite: Honors Colleageum 101E. Limited to junior/senior USIE facilita-
tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.
188S. Individual Studies for USIE Facilitators. (2)
Tutorial, to be arranged. Enforced corequisite: course 188SB. 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.
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 in different years. Honors content noted on transcript. P/NP or letter grading.
194. Internship Seminars: Film, Television, and Digital Media. (2)
Seminar, two hours. Designed for stu-
dents currently in departmental internships. General introduction to contemporary film and television in-
dustries and discussion and engagement with and ex-
pansion of internship experiences. Common business practices and expansion of critical understanding of industry at large. May be repeated for credit. Letter grading.
195. Corporate Internships in Film, Television, and Digital Media. (2 or 4)
Tutorial, three hours; fieldwork, eight to 10 hours. Limited to juniors/seniors. Corporate inter-
iship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide peri-
212. Cinema and Media Studies Graduate Colloquium. (2) Lecture, two hours. Exchange with scholars inside and outside department through lectures and academic planning sessions, and often for professional 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 or 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 or such traditions as phenomenology, auteurism, cinema, semiotics, psychoanalysis, sociology, etc. S/U or 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—with how other cultures enter into politics of representation and reification of politics through metaphors of (1) difference without opposition, (2) heterogeneity without hierarchy, and/or (3) otherness without ethnocentrism. Examination of how women, national minorities, and Third World peoples have been rendered others; place of cinematic structures in this process and how a demization of others is positioned vis-à-vis main environments. 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. Studies of patterns, styles, and themes of such genres as Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit. S/U or letter grading.

223. Seminar: Visual Perception. (6) Seminar, three hours; film screenings, three hours. Aesthetic, psychological, physiological, and phenomenological approaches to vision as they relate to ways in which viewers experience and see film, television, and digital media. Letter grading.

224. Computer Applications for Film Study. (6) Lecture, three hours; film screenings, three hours. Survey of computer applications relevant to film study, principally computer-videographic 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 history, industrial practice, social effects, or any other of many interesting questions that games also raise. Acknowledgment of roots in film, television, and media studies and investigation of emerging videogame field. S/U or letter grading.

229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM229.) Lecture, two hours; screenings, two hours. Limited to junior/advanced MA 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 distinctions 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.

242. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigation of techniques of digital still imagery and aesthetics of digital image, in context of examining dynamics of cultural constructions and visual codes. Students conceive and produce several digital image visualizations in collaboration that they may submit for credit. Concurrently scheduled with course C142. Letter grading.

243. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce number of short projects. Concurrently scheduled with course C143. Letter grading.

244. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interface design and interactive audiovisual construction. Students conceive and produce individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.


246. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory component that explores 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.

247. Production Management: Physical Production for Creatives. (4) Lecture, three hours; laboratory, one hour. Analysis of procedures, problems, and planning for film and television production, with emphasis on role of producer and creative organizational techniques of producing. Concurrently scheduled with course C147. Letter grading.

248. Advanced Digital Media Workshop. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to evaluate digital media works with advanced software tools and techniques in small process-oriented, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C148. Letter grading.

270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of key aesthetic questions of film and television as they bear on relationships of different cinematic apparatus in this process and how aesthetic and ideological impulses of selected films may be articulated. May be repeated once for credit. S/U or letter grading.

271. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for second-year Film and Television MA candidates. Study of analytic and critical response, with emphasis on contemporary film and television. S/U or letter grading.

272. Seminar: Research Design. (6) Seminar, three hours. Designed for second-year Film and Television PhD candidates. Examination of general principles that govern formulation of major research projects and preparation of prospectus for PhD dissertation. S/U or letter grading.

274A. Research Design 1: Initial Research Design. (6) Seminar, three hours. Introduction to components of dissertation prospectus including development of title and introduction, methodology, literature review, chapter breakdown, work plan, bibliography, and filmography. Development of research questions, bibliographic research, literature review, methodology of empirical research gathering in relation to forming and justification of project scope. Outlining of possible chapter breakdowns. S/U or letter grading.


276. Seminar: Non-Western Films. (6) Seminar, three hours (additional hours as required); film screening, 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. Letter grading.

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 series proposals for review and feedback by class, instructor, and guests. Letter grading.
283A. Fundamentals of Writing for Television. (4) Lecture, three hours. Comprehensive overview of today’s television landscape for writers, with emphasis on new structures and formats ushered in by on-demand, digital television revolution. 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 picking 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. Requisite: course 283A. Practical knowledge about skills necessary to be writer/executive producer of half-hour comedy show. Focus on community building, collaboration, and leadership. Assignments designed to assist students in writers’ room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.

284A. Writing One-Hour Drama Speculative Episod. (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 picking 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. Requisite: course 283A. Practical knowledge about skills necessary to be writer/executive producer of one-hour drama show. Focus on community building, collaboration, and leadership. Assignments designed to assist students in writers’ room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.

287A. Introduction to Art and Business of Producing I. (4) Seminar, three hours. 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 talent, 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. Builds on principles taught in course 287A and presents continuation of study of development, production, and distribution of feature films for worldwide theatrical market, including identifying talent, attracting elements, and understanding basics of studio and independent financing and distribution. Minimum of two unproduced screenplays to be presented for review by class and instructor to begin identifying potential thesis projects. S/U or letter grading.

287C. Introduction to Art and Business of Producing III. (4) Seminar, three hours. Requisites: courses 287A, 287B. Builds on principles taught in courses 287A and 287B. Presentation of screenplays prepared in course 287B for review by class and instructor with goal of isolating and identifying primary and secondary thesis projects. Discussions of script analysis and creating set of viable development notes for primary projects. Completion of written outline for original production project. Advisory board of industry executives for further feedback. S/U or letter grading.

288A-288B. Feature Film Development I, II. (4–4) Lecture, three hours. Course 288A is requisite to 288B. Practical hands-on approach to understanding and implementing producer’s role in development of feature film screenplay and negotiating particulars of production process. Through in-class discussions, script analysis, story notes, and select guest speakers, exposure to various entities that comprise feature film development process. S/U or letter grading.

289A. Current Business Practices in Film and Television. (4) Discussion, three hours. Requisite: course C247. Designed for graduate students. Examination of current status of financing/production/distribution agreements, union agreements, music, copyright, etc. necessary to understand film and television industry. S/U or letter grading.

289B. Strategy. (4) Lecture, three hours. Course 289A is requisite to 289B. Examines realities of industry, with focus on techniques for analyzing behavior, making strategic decisions, and overcoming obstacles to achieving results as producer, writer, or director. Assignments designed to assist students in articulating and achieving their goals and to help them effectively transition from classroom to their careers in entertainment industry. S/U or letter grading.

289C. Independent Spirit: Creative Strategies for Financing and Distributing Independent Features. (4) Lecture, three hours. Course 289B is not requisite to 289C. Key insights into financing and distribution of independent or specialty films. Topics include film finance, legal and business affairs, international sales, distribution, and new technology, with emphasis on applying this knowledge to individual student projects. S/U or letter grading.

291A. Thesis Workshop 1. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings with instructor, students, and various industry guests. Development of one story idea for thesis project. S/U or letter grading.

291B. Thesis Workshop 2. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings. Students must make concrete weekly progress on thesis project and adapt strategy based on feedback received. Development of marketing and business strategies for story idea set up in course 290A. S/U or letter grading.

290C. It’s a Wrap: Preparation for Your Entertainment Career. (4) Seminar, three hours. Final stages of thesis preparation for evaluation. Guidance provided by instructor on how to effectively present selected project. Requirements include industry-related book reports, script analysis, pitching selected concept, weaving together components of the marketplace, executing a presentation, and answering questions. S/U or letter grading.

293A. Contracts and Negotiation. (4) Lecture, three hours. Course 294A is not requisite to 293A. Legal-based course dealing with independent finance and distribution of feature films. Topics include fundamentals of film financing, domestic distribution, international distribution, European coproductions, role of foreign sales agents and of bankers and completion bond companies. S/U or letter grading.

295A. Art of Presentation. (4) Lecture, three hours. Cultivation of skills needed for students to present themselves and their project goals with clarity and precision to industry professionals. Oral presentations designed to enhance student ability to deliver convincing arguments on range of topics. S/U or letter grading.

295B. Advanced Film and Television Producing Workshop for Producers, Writers, and Directors. (4) Lecture, three hours. Course 295A is not requisite to 295B. Designed to help producers, as well as screenwriters and directors, network and develop new opportunities and to develop strategies to bring their feature and television projects to marketplace. Case-study documents (drafts of screenplays, dailies, etc.) from current or recently produced projects provided. S/U or letter grading.

295C. Advanced Producing: Role of Successful Producer. (4) Lecture, three hours. Designed to provide producers with comprehensive understanding of business acumen involved in purchasing scripts for studios and independent production companies. Through script analysis and in-class discussions, students encouraged to examine not just story elements, but financial, legal, and creative aspects inherent in pieces of material. S/U or letter grading.

296A. Role of Talent Agencies. (4) Lecture, three hours. Introductory overview of various departments at agencies, including motion picture literary, talent, story, packaging, and television, and examination of various interactions among each. Exercises encourage producers, writers, and directors to learn how to work effectively with individuals at talent agencies. S/U or letter grading.

296B. Who Represents Me? (4) Lecture, three hours. Course 296A is not requisite to 296B. In-depth analysis of different forms of representation offered by agencies, managers, representatives, agents, and legal organizations. Development and maintaining of contact with agencies and legal organizations. 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 elements. Writing and feedback by class, instructor, and guests. S/U or letter grading.

297B. Digital Media Producing 2. (4) Seminar, three hours. Examination and analysis of creative and physical production processes for producing content for digital platforms. Development of production plans for original, digital media concepts with interactive or participatory story elements for review and feedback by student original digital media project proposal. S/U or letter grading.

297C. Digital Media Production 3. (4) Seminar, three hours. Development of short teaser trailer or website using digital and web-based resources to promote student original digital media project proposal. S/U or letter grading.

298A. Special Studies in Film and Television. (2 to 6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Seminar study of problems in film or television production, organization on topic basis. May be repeated once for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, instructor, 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. Film Image Design Laboratory. (4) Lecture, two hours; laboratory, three hours. Limited to graduate film and television students. Conception and design of nonnarrative film imagery. One-minute experiment in relation of meaning to technique, including manipulation of optics, photochemistry, elements of electronic processes, and display of time and motion. May be repeated only on petition. S/U grading.

400B. Introduction to Cinematography II. (2) Lecture, three hours; laboratory, three hours. Continuation of study of cinematography with emphasis on lighting. Instructor meets individually with teams of director/cinematographer to prepare for shooting six-minute projects. 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 viewing great films of past that empowers filmmaker to utilize images to tell only stories in present. Focus on strategic decision making in areas of writing, design, cinematography, editing, sound, and performance to enable filmmaker to discover their own personal style for telling stories on screen. Letter grading.

402A-402B. Advanced Narrative Directing Workshops. (4 or 8) Limited to nine graduate film and television students. Production of 15- 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 budget and preproduce their projects by 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.


403A-C403B-C403C. Advanced Documentary Workshops. (4 to 8 each) Lectures, assistant, laboratory, 16 to 24 hours; fieldwork, to be arranged. Requisites: courses 409, 410A, 410B, 410C, 433. Limited to graduate film and television students. Production of advanced 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 C186A-C186B-C186C. S/U or letter grading.

404. Emerging Techniques and Technologies in Cinematography. (4) Lecture, two hours; laboratory, two hours. Requisites: course 410B. Designed for graduate students. Assistants and intern/shooters shooting and preproduction on films and television. 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. (8-8) Lecture/discussion/laboratory. 12 hours. Laboratory, three hours. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students per section. Production of 20-minute abstract or experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rotating assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

404C. Advanced Abstract/Experimental Media Workshop. (8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 404A, 404B. Completion of all stages of production and postproduction of 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 screening variety of international works and producing 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. S/U or letter grading. 408A. Avid Editing 1; 408B. Avid Editing 2.

409. Directing Actors for Camera Workshop. (4) Workshop, six hours (two hours of four hours laboratory preparation, two to four hours. Limited to MFA production program students. Team-taught with five weeks designed to give director actor/camera technician/cinematographer and lighting director strategies to elicit good performances from actors. Emphasis on problems faced when directing actors for film. S/U or letter grading.

410A. Symposium. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Exploration of principal concepts of film and television production within context of preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical craft courses. Exploration of strategies for learning production within academic environment. May be repeated twice for credit. Letter grading. 410B. Cinematography. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practical 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 hands-on experience in all aspects of film production (tools and practical medium) as each student writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410D. Postproduction Sound. (2) Seminar, three hours. Requisites: courses 405, 409. Limited to and required of first-year MFA production program stu- dents. Technical and aesthetic aspects of postproduction sound recording, editing, 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 Avid Tools LE for recording, editing, and mixing, selection and use of microphones and mixing consoles, and incorporation of Final Cut Pro soundtracks into mix environment. Students record student ADR and Foley and present mix of edited dialogue/ADR, Foley, mix, and music tracks by end of term. Letter grading.

410E. Production. (12) Lecture, three hours; fieldwork, 24 to 40 hours. Requisites: courses 401, 409, 410B, 410C, 433. Limited to and required of 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, design, editing, and postproduction roles in the same films. Concurrently scheduled with course C118. Letter grading.

411. 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.

417. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Limited to graduate film and television students. Explored exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood or atmosphere of premediums recorded on same electronic system. May be repeated twice for credit. Concurrently scheduled with course C157. Letter grading.

418. Cinematography and Directing. (4) Lecture, two hours; laboratory, six hours. Requisite: course 417. Limited to graduate film and television students. Supervised filming of short dramatic projects on sound stage and at exterior locations that explore complexity of process, emphasizing balance and collaboration integral to both directing and photography in its varied technical, production, and creative aspects. Letter grading.

419. Advanced Cinematography. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses 417, 418. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. S/U or letter grading.

420. Digital Cinematography. (4) Lecture, three hours. Advanced study of principles of digital cinematography, with emphasis on electronic exposure control, lighting, formats, color, and color correction while using UCLA’s John Candy Room 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 Avid Tools LE for recording, editing, and mixing, selection and use of microphones and mixing consoles, and incorporation of Final Cut Pro soundtracks into mix environment. Students record student ADR and Foley and present mix of edited dialogue/ADR, Foley, mix, and music tracks by end of term. Letter grading.

423A. Direction of Actors for Film and Television. (4) Lecture, four hours; laboratory; Preparation: first film project. Limited to graduate film and television students. Required of all production majors shooting fiction thesis. Exercises in analysis of script and character for purpose of directing actors in film and television productions. Emphasis on eliciting best possible performance from actors. May be repeated twice for credit. S/U or letter grading.

423B. Advanced Direction of Actors for Film and Television. (4) Studio laboratory, six hours. Requisite: course 423A. Limited to graduate film and television students. Advanced study and practice of directing actors before camera. Emphasis on developing techniques 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.

431. Introduction to Film and Television Screenwriting. (4) Lecture, three hours. Limited to graduate film and television students. Introductory course in problems of film and television screenwriting. S/U or 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, demystification of ever-changing world of digital workflow. Students present schedule of their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C158. Letter grading.

45A-45B9. Directing for Film and Television. (4-4 Lecture, four hours; laboratory, two hours, limited to graduate film and television students. Analysis and exploration, with specific scenes, of differences and many similarities in directorial approach to same literary material in theater, film, and television. Concurrently scheduled with course C156. Letter grading.


45. Directed Individual Study: Preparation to Advance to Candidacy for MFA in Production. (2 to 8 Tutorial, four to eight hours. Limited to MFA production program students. Specialized development and organization of proposed thesis project prior to advancement to candidacy. Should be taken term before student plans to advance to candidacy. S/U or letter grading.

45D. Directed Individual Study: Postproduction Laboratory. (4) Laboratory, eight hours. Limited to MFA production program students. Completion of projects in final stages of postproduction. May not be repeated. S/U or letter grading.

45A8. Computer Animation in Film and Video. (4 to 8) Lecture, four hours; laboratory, four to eight hours; other, to be arranged. Preparation: completed animation and interactive animation to form complete project of selected interactive topic. May be repeated for maximum of 16 units. Letter grading.

465. Legal Issues in Animation. (4) Lecture, three hours; laboratory, three hours. Examination of legal issues in animation, including copyright, contracts, and other legal issues in the industry. Emphasis on employer/employee relationships, and representation in animation. S/U or letter grading.

466. Narrative Television Workshop. (8) Laboratory, eight 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 the camera. Letter grading.

468. 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, postproduction, and aesthetic aspects of postproduction sound recording, editing, and re-recording for film and television. 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 salable in American and foreign markets and how to work 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 and assignments. Letter grading.

481A. Introduction to Animation. (5) Lecture, three hours; laboratory, three hours. Drawing experience not required. Fundamentals of animation through preparation of a brief animated film. Concurrently scheduled with course C181A. S/U or letter grading.

481B. Writing for Animation. (4 or 8 Lecture, six hours; studio, to be arranged. Requisite: course C481A. Instruction in writing for animation. May be repeated for maximum of 16 units. Concurrently scheduled with course C181B. S/U or letter grading.

481C1. 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 C181C. S/U or letter grading.

482A-482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; studio, to be arranged. Requisite: courses 181A, 181B, 181C. Advanced organization and 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 181B. Course 483A is requisite to 483B, which is requisite to 483C. Creation and production of complete and original advanced computer animated film. Letter grading.

484A-484B. Visual Thinking and Organization for Animation. (4-4 Lecture, six hours; laboratory, four hours. Concurrently scheduled with course 4845. Hour-long systematic analysis and understanding of the visual 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, and other legal issues in the industry. Emphasis on 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 8) Tutorial, four to eight hours. Limited to MFA production program students. Specialized development and organization of proposed thesis project prior to advancement to candidacy. Should be taken term before student plans to advance to candidacy. S/U or letter grading.

487. Directed Individual Study: Postproduction Laboratory. (4) Laboratory, eight hours. Limited to MFA production program 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, 181C. Organization and integration of various creative arts used in animation and interactive animation to form complete study of selective interactive animation project. 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; other, to be arranged. Preparation: completed animated film. Requisites: courses 181A, 181C. Instructed in and supervised production of computer animation. May be repeated for maximum of 16 units. 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 contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled with USC. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of graduate adviser and graduate dean, and host campus instructor, department, internship design and graduate advisor. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.
Undergraduate Minor

Food Studies Minor

Through interdisciplinary courses and a capstone experience, students in the minor acquire a unique insight of food studies and emerge with a new intellectual framework for understanding this expanding area of study.

The capstone requirement gives students the opportunity to either put their studies into practice through internship or complete independent research in a food-related area of interest.

Admission

To be eligible for the Food Studies minor, students must be in good academic standing (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.

Social, Cultural, and Historical Perspectives:


Required Capstone Course (4 units): Food Studies 195CE or 199.

Policies

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.

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 to complete 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 Public Problems. (3) Lecture, two hours; discussion, one hour. Development of process of further thinking about stories behind conclusions from nutrition studies and food scientific literature. Exercises, discussions, reports, and readings designed to provide practices to become critical thinker in food science and literature. P/NP or letter grading.

35. Visual Representations of Food from Antiquity to Present. (5) Lecture, three hours; discussion, one hour. Examination of food imagery in visual art from antiquity to present. Introduction to many major movements in Western art history, with primary focus on historical and sociological implications that can be derived from close analysis of visual representations of food, kitchens, markets, and agriculture over centuries. Topics of investigation include diets of ancient Romans as evidenced by floor mosaics and wall paintings of Pompeii, religious symbolism of food during Middle Ages; opulence of Renaissance banquets; common food of common folk; significance of still life paintings; what paintings can tell us about trade, turn-of-the-century tables; food and anxiety; 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. (3) 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 documents, 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. Students work with instructor to explore topics in greater depth through supplemental readings, papers, or other activities led by the course instructor. Students 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

M132. Food Cultures and Food Politics. (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: food studies, with focus on the sociocultural, scientific, and political aspects of food and issues that affect our food systems. Topics include social movements that call for change, global and local food injustices, and the relationship between science and politics. May be repeated for credit. S/U grading. 495

M136. Eating Society: Science and Politics of Food. (Formerly numbered M136.) Lecture, discussion, one hour. Requisite: English Composition 3. Exploration of historical meaning of food in late Medieval and Early Modern Europe through lens of recipes. How recipes, as historical documents, reveal cultural interactions, and historical ways of knowing. Introduction to ways that historians attempt to understand and recreate rhythms of daily life through interactive pedagogy, science of cooking, and historical recipes. Students gain working knowledge of food studies as interdisciplinary field from historical perspective. Research project documenting original research. Satisfies Writing II requirement. P/NP or letter grading.

M133W. Historical Recipes and Recipe for History. (Formerly numbered M133.) Lecture, fieldwork, two hours. Interdisciplinary service learning course that provides general understanding of access and equity issues related to food chains, in local communities and third world. Students study issues faced by residents of lower-income communities. Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Component of course includes meaningful work with off-campus community partners selected in advance by instructor and Center for Community Engagement. Letter grading.

M170XP. Food Studies and Food Justice in Los Angeles: Community Engagement and Social Change. (Same as Community Engagement and Social Change M170XP.) Lecture, three hours; fieldwork, two hours. Interdisciplinary service learning course that provides general understanding of access and equity issues related to food chains, in local communities and third world. Students study issues faced by residents of lower-income communities. Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Component of course includes meaningful work with off-campus community partners selected in advance by instructor and Center for Community Engagement. Letter grading.

M176XP. Making Films about Food. (Formerly numbered M176SL.) (Same as Community Engagement and Social Change M176XP and Public Affairs M176XP.) Lecture, three hours. Introduction to documentary video production and distribution. Students work on assignments in video production, distribution, and creation of films. P/NP or letter grading.

M179. Food Activism in Los Angeles: Narrating Pasts, Imagining Futures. (Same as World Arts and Cultures M179.) Lecture and discussion, two hours; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship and community engagement component. Co-created with social media strategies to help think through intervention in face of historically entrenched industrial food production and regulations that remain favorable to processed foods. P/NP or letter grading.

M167. Historical Sociology of Urban/Rural Relations and Food Production. (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, family and hunger, and agricultural advances and environmental impacts. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or other activities and led by lecture course instructor. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Food Studies. (Same as Society and Genetics M199.) Tutorial, one hour. Entry-level research apprenticeship under guidance of faculty mentors affiliated with Food Studies minor. Collaboration with faculty mentors on graduate research in area related to food studies. May be repeated for credit. Individual contract required. 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 graduate research in area related to food studies. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Foodways, Diet, and Nutrition. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. 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 the guidance of a faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter 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

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>M151</td>
<td>Modern Arabic Literature in English</td>
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<td>M150A</td>
<td>Survey of Persian Literature in English</td>
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<td>C152</td>
<td>Modern Armenian Drama as Vehicle for Social Critique</td>
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<td>C153</td>
<td>Art, Politics, and Nationalism in Modern Armenian Literature</td>
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<td>Asian</td>
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<td>Asian American Studies</td>
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<td>M173</td>
<td>Topics in Vietnamese Cinema and/or Literature</td>
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<td>Central and East European Studies</td>
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<td>M120</td>
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<td>C150A</td>
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<td>Chinese Literature in Translation: Traditional Narrative and Fiction</td>
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<td>Chinese Literature in Translation: Modern Literature</td>
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<td>Classics</td>
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<td>Classical Mythology</td>
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<td>40W</td>
<td>Reading Greek Literature: Writing-Intensive</td>
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<td>41W</td>
<td>Reading Roman Literature: Writing-Intensive</td>
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<td>60</td>
<td>Fantastic Journey: Antiquity and Beyond</td>
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<td>137</td>
<td>Ancient Lives: Art of Biography</td>
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<td>Topics in History of Greek Literature</td>
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<td>M145A</td>
<td>Ancient Greek and Roman Philosophy</td>
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<td>M146B</td>
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<td>150A</td>
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<td>Female in Roman Literature and Culture</td>
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<td>162</td>
<td>Reception of Ancient Myth</td>
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<td>163</td>
<td>Ovid and Consequences</td>
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<tr>
<td>Comparative Literature</td>
<td>(Comparative Literature)</td>
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<tr>
<td>All undergraduate courses except course M191P</td>
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</tbody>
</table>
151B. Modern Jewish Literature in English: Israeli Literature
175. Modern Israeli Literature Made into Films
Korean (Asian Languages and Cultures)
C150. Korean Literature in Translation: Classical
C151. Korean Literature in Translation: Modern
154. Contemporary Korean Culture through Literature and Film
Polish (Slavic, East European, and Eurasian Languages and Cultures)
152A. Survey of Polish Literature: From the Middle Ages to Neoclassicism
152B. Survey of Polish Literature: Reimagining a Nation
152C. Survey of Polish Literature: Dreaming, Mocking, and Writing "as if"
Portuguese (Spanish and Portuguese)
40A. Portuguese, Brazilian, and African Literature in Translation: Portuguese and Portuguese-African Literature
40B. Portuguese, Brazilian, and African Literature in Translation: Brazilian Literature
46. Brazil and Portuguese-Speaking World
141A. Literature and Film in Portuguese
141B. Film, Television, and Society in Brazil
141C. Documentary Film
142A. Brazil and Its Culture
142B. Brazil and Portugal in Comparative Perspective
M142C. Travel Narratives, Testimony, Autobiography
Romanian (Slavic, East European, and Eurasian Languages and Cultures)
152. Survey of Romanian Literature
Russian (Slavic, East European, and Eurasian Languages and Cultures)
25. Great Russian Novel
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
C124G. Studies in Russian Literature: Gogol
C124N. Studies in Russian Literature: Nabokov
C124P. Studies in Russian Literature: Pushkin
C124T. Studies in Russian Literature: Tolstoy
125. Russian Novel in Its European Setting
126. Russian Theater: Plays and Performance
M127. Women in Russian Literature
128. Russian Science Fiction
C170. Russian Folklore
Scandinavian (European Languages and Transcultural Studies)
40. Heroic Journey in Northern Myth, Legend, and Epic
40W. Heroic Journey in Northern Myth, Legend, and Epic
50. Introduction to Scandinavian Literatures and Cultures
50W. Introduction to Scandinavian Literatures and Cultures
60. Introduction to Nordic Cinema
60W. Introduction to Nordic Cinema
C131. Introduction to Viking Age
C139A. Saga
134. Scandinavian Mythology
C137. Old Norse Literature and Society
138. Vikings
C141A. Theory of Scandinavian Novel
141C. Short Story in Scandinavia
142A. Introduction to Nordic Theater and Drama
143A. Scandinavian Detective Fiction
143C. Scandinavian Crime Literature
C145A. Henrik Ibsen
C145B. Knut Hamsun
C146A. 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
C171. Introduction to Scandinavian Folklore
172A. Nordic Folk and Fairy Tales
C174A. Minority Cultures in Scandinavia
173A. Popular Culture in Scandinavia
174B. Queer Scandinavia
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)
10. From Old World to New: Becoming Modern as Reflected in Yiddish Cinema and Literature
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
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310-206-8101
Department e-mail
Sherene H. Razack, PhD, Chair

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Jessica R. Cattelino, PhD
Alicia Gaspar de Alba, PhD
Mishuana R. Goeman, PhD
Gil Z. Hochberg, PhD
Grace Kyungwon Hong, PhD
Douglas M. Kellner, PhD
Rachel C. Lee, PhD
Purnima Mankekar, PhD
Kathleen A. McHugh, PhD
Sean A. Metzger, PhD
Nancy M. Mithlo, PhD
Rafael Pérez-Torres, PhD
Maylei S. Blackwell, PhD
Endowed Professor of Women’s Studies

Professors Emeriti
Sondra Hale, PhD
Sandra Harding, PhD
Françoise Lionnet, PhD
Christine A. Littleton, JD
Susan K. McClary, PhD
James A. Schultz, PhD

Associate Professors
Lieba A. Faier, PhD
Sarah Haley, PhD
Elizabeth A. Marchant, PhD
Uri G. McMillan, PhD
Safia U. Noble, PhD
Kathryn Norberg, PhD
Sarah T. Roberts, PhD
Sharon J. Traweek, PhD

Assistant Professors
Juliann T. Anesi, PhD
Alisa M. Bierria, PhD
Joshua J. Guzmán, PhD
Ju Hui (Judy) Han, PhD
Zeynep K. Korkman, PhD

Overview
The Department of Gender Studies offers interdisciplinary academic programs that are both nationally and transnationally oriented. Students develop critical reasoning and analytic 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 concepts, key controversies, and the emergence of new theoretical paradigms.

The department has long enjoyed recognition for its strengths in areas including women's history, feminist science studies, and gender and the law. Over the past decade, it has become a leading program for interdisciplinary intersectional feminist scholarship on gender, sexuality, race, class, and nationality; and has built a strong reputation in transnational feminist studies, studies of settler colonialism, neoliberalism, racial violence, cultural politics, migration, social movements, affect, visual culture, and disability, as well as feminist policy studies, critical prison studies, women of color feminism, queer of color critique, and queer theory.

Undergraduate Major
Gender Studies BA
The major in Gender Studies may be taken alone or in conjunction with another Letters and Science major. In the case of a double major, no more than five courses may be applied toward both majors.

Capstone Major
The Gender Studies major is a designated capstone major. Students are required to complete a senior seminar in which they conduct original research while studying readings that consider how disciplinary and interdisciplinary research has been conducted and critiqued. Through their senior seminar work, students produce a significant work that may include an original research paper, a media project, or an in-depth literature review. They are expected to demonstrate working knowledge of the field of gender studies; understand key theoretical approaches in the study of women, gender, and sexuality; have ability to construct well-written analytic essays and present their work orally; and conduct a research project that involves the consultation of scholarly literature and presentation of evidence to support an argument.

Learning Outcomes
The Gender Studies major has the following learning outcomes:
- Demonstrated working knowledge of the field of gender studies
- Understanding of key theoretical approaches in the study of women, gender, and sexuality
- Demonstrated ability to construct well-written analytic essays and give an oral presentation
- Conduct a research project that involves the consultation of scholarly literatures and presentation of evidence to support an argument

Entry to the Major
Admission
To be admitted to the major, students must have completed Gender Studies 10, be in good standing, and formally register with the department. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the undergraduate adviser.

Students are encouraged to draw on diverse UCLA resources in creating their program of study. They may pursue traditional and/or innovative subjects in fields ranging from the humanities and fine arts to the social and life sciences. In addition to courses on the gender studies approved list, students may petition to study the elective requirement; courses 198B and 198C) with their faculty sponsor and receive a grade of B+ or better on their research project. Course 198A may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar). 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.

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.

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, sexuality, 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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. May be repeated for credit with topic or instructor change. 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. May be repeated for credit with topic or instructor 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 credit. Encompasses research opportunities available 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

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 within and across classes. Focus on continuous development of paper topic as result of in-class discussions and formal writing exercises. Small writing groups assist students in understanding relationships between texts, and how they are comprehended by different readers. Students gain understanding of writing process, including topic conceptualization, organization of writing project, language and resources, and 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 gender-based subordination and ways feminist theorists have conceived and critiqued traditional 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 do empire, colonialism, liberalism, neoliberalism, and globalization produce distinctive forms of gendered violence, gendered knowledge, and gendered subjectivities? How are gender and sexuality produced in political, religious, or legal, national, and economic? 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 contexts. Students engage key issues in feminist theory and feminist epistemology. How do feminist scholars identify and frame research questions? How is knowledge about marginalized subjects produced? How has feminism challenged dominant understandings of knowledge, rationality, objectivity, and scientific method? How do social movements seek 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 sociobiological theories and histories of body, with focus on topics such as sex identities, sexuality, gendered violence, and reproductive politics. How has science, medicine, and culture sought to distinguish male from female in different historical periods and locations? How do socio-cultural and gendered terms such as friendship, self-variation across time and place? How has gendered body been represented in different visual cultures? How has embodiment appeared in different historical and geographic contexts? What is relationship between embodiment and desire? P/NP or letter grading.


105. Topics in Women and Medicine. (4) Lecture/reading/individual study with lecture course instructor. Examination of medical conditions of women in context of 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 healthcare to women. Exploration of roles and lifestyles of female physicians. P/NP or letter grading.

M104A. 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.

M105B. Queer Literatures and Cultures, 1850 to 1970. (5) Same as English M101B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Oscar Wilde, Herman Melville, 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.

M105C. 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, traditionalist period, and beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Eve Ensler may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105D. Studies in Queer Literatures and Cultures. (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 writings. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M106. Imaginary Women. (5) Same as Honors College M106.) Seminar, four hours. For juniors/seniors. Study of four female cultural archetypes—abscending 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.

M107A. 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 women writers that may include historical, regional, national, or thematic emphasis. Topics may 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.

M107B. Studies in Gender and Sexuality. (5) Same as English M107B and Women, Gender, 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, em-

M109. Women in Jazz. (4) (Same as African American Studies M109, Ethnomusicology M109, and Global Jazz 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.

M110C. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) Same as Philosophy M187.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: Gender Studies majors course 10; for other students: one philosophy course. Examination in depth of theoretical positions on gender and women as they have been applied to metaphysics and epistemology. 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. P/NP or letter grading.

M111. Women and Film. (6) (Same as Film and Television M111.) Lecture, eight hours; discussion, one hour. Historical and current approaches to women and cinema that may include authorship, stardom, female genres, and images of women in Hollywood cinema, alternative cinema, and independent cinema from silent era to present. Letter grading.

112. Special Topics in Women and Arts. (4) Lecture, three hours. Enforced 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 art practices by women in relation to issues of power, representation, and commodification. Enforced requisite: for Gender Studies majors, course 10. P/NP or letter grading.

113. Sex Work. (4) Lecture, three hours. Enforced requisite: course 10. Analysis of variety of contemporary sex work and how it is treated and regarded from feminist perspective. Examination of how race, class, and gender affect sex workers' experiences of oppression, and consideration of critically feminist responses by range of authors to sex work. Topics include brothels, sex tourism, and prostitution. P/NP or letter grading.

114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (5) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and scientific study of lesbians, gay men, bisexuals, transgendered, and queer, and questioning of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

115. Topics in Study of Sexual and Gender Orientation. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M115.) Lecture/discussion, three hours. Enforced requisite: course 10 or M114. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural representations, historical and political change, life and health experiences, and queer or transgender theories; multiethnic and cross-cultural emphases. May be repeated for credit. Letter grading.


117. Introduction to Queer Latina/Latino Studies. (4) Lecture, four hours; discussion, one hour. Emphasis on construction of Latina/Latino identity and its limitations as it emerges within contemporary literature, music, film, and performance art. Engagement with texts that posit queer anality, and with films that re-frame the cultural imagination by modes of desire and identification that fall out of dominant notions of Latino in popular culture. Critical engagement of limits of knowledge production around Latina/Latino identity to develop new analytical tools that abide by question of Latinidad rather than posit an answer or solution to its political consequences in contemporary U.S. culture. Study draws upon feminist and queer theorists such as Ana Mendieta, Nao Bustamente, Asco, Carmelita Tropicana, Gloria Anzaldua, Felix-Gonzalez Torres, Gil Cuadros, and Gregg Arki. P/NP or letter grading.


119 Racial Violence and Law. (4) Lecture, three hours. Enforced requisite: course 10. Through feminist, anti-colonial, and anti-racist framework, exploration of racial violence and appropriate anti-violence strategies. Offers theoretical discussion and understanding of racial violence. Consideration of what is racial violence and racial terror; how feminists should respond to racial violence; and connection between experiences of extraordinary racial violence and our everyday world; how we understand violence at specific sites, e.g., carceral sites, schools, streets, borders, and in different historical contexts; how individuals come to participate in, remain indifferent to, or approve of racial violence; role of hegemonic masculinity and femininity in these processes; and how violence is sexualized. Exploration of these and other questions through consideration of anti-indigenous/colonial violence, anti-Black and anti-Mexican violence, racial violence underpinning anti-immigrant and anti-refugee movements, torture, and state violence. P/NP or letter grading.

120SL. Feminist Praxis: Community-Based Learning. (4) Seminar, three hours; fieldwork, four hours. Preparation: at least two gender studies core courses. Requisites: course 10 and one course from 102, 103, or 104. Service-learning course combining seminar with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partners selected in advance by instructor in consultation with Center for Community Learning. Letter grading.

M121. Topics in Gender and Disabilities. (4) (Same as Disability Studies M121.) Lecture, three and one half hours. Limited to juniors/seniors. Ways in which issues of disability are affected by gender, with particular attention to various roles, positions, and concerns of women with disabilities. Approach is intersectional, exploring how social positioning of class, race, ethnicity, religion, age, sexuality, nationality, and citizenship affect and are affected by gender and disability. Topics may include law (civil rights, nondiscrimination), representation (arts, literature), education, public policy, health. May be repeated for credit with topic and instructor change. P/NP or letter grading.

122. Masculinities. (4) Lecture, three hours. Enforced requisite: course 10. Masculinity as theorized by feminist theorists and shaped by race, class, age, and nation. Topics include feminist theories of masculinity, male body, childhood and adolescent socialization, sport, male violence, homophobia, black masculinity, globalization and masculinity, and men’s movements in 1970s and beyond. Special emphasis on social science approaches and methodologies. P/NP or letter grading.

123. Gender, Race, and Class in Latin American Literature and Film, 1850 to 1950. (4) Seminar, three hours. Requisite: course 10. Readings and discussion in English. Comparative survey of cultural expression in Latin America, with emphasis on works produced or set in late-19th and early-20th centuries. Historical and social circumstances of women in different Latin American cultural contexts, with particular concentration on how gender, sexuality, race, and class are absent or reflected in literature. Within this framework, examination of how cultural production sustains or interrogates categories used to construct social, political, and cultural hierarchies. Topics in- clude but are not limited to women’s participation in formation of national cultures, engagement with artistic movements, and strategies of self-figuration. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (8) (Same as Film and Television M124.) Lecture, three hours; discussion, one hour. Drawing on feminist media studies, training of students in media literacy so that they acquire necessary skills to critically engage with film as medium of communication and to appreciate how film provides lens to examine some of most critical issues of our time. Development of understanding of transnationality to examine transnational flows of capital, labor, and commodities transact, render problematic, and sometimes reinforce national borders. Examination of role of film in both exemplifying and re- sembling these conditions that in turn affect film forms enable understanding of historical and contemporary relationships between mobility, coercion, and migration; colonialism and settler colonialism; Orientalism, geopolitics, and sexuality; cultural identity and diaspora; transnational circulations of sexual desire and embodiment; immigration and religious difference; and criminalization of racial difference. P/NP or letter grading.

125. Perspectives on Women’s Health. (4) Lecture/discussion, three hours. Requisite: course 10. Examination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of healthcare. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as English M126.) Lecture, three hours. Enforced requisite: course 10 or 104. Service-learning course combining seminar with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partners selected in advance by instructor in consultation with Center for Community Learning. Letter grading.

M127. Women in Russian Literature. (4) (Same as Russian M127.) Lecture, three hours. Enforced requisite: course 10 or 103, or 104, Service-learning course combining seminar with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partners selected in advance by instructor in consultation with Center for Community Learning. Letter grading.


129. Women and Gender in Caribbean. (4) Seminar, three hours. Enforced requisite: course 10. Seminar in which gender discourses have been central to making of Caribbean history and to some most enduring debates of European empire, capitalist de-
development, and coercive labor. Emphasis on women who lived through slavery and indentured servitude and who continue to live under systems of globalization and neoliberal exploitation. How Caribbean women have historically empowered themselves and their communities, working in various ways to survive, radicalize, and transform their worlds. Ways in which ideas about gender and sexuality have shaped emergence of new nations and national cultures in Caribbean, and the profound margins of women in public space and popular culture. Exploration of complicated ways in which gender, race, class, sexuality, and national identity intersect in different Caribbean contexts and letter grading.


131. Feminist Politics in Korea and Diaspora. (4) Lecture, three hours. Examination of gender, religion, and social movements in Korea and Korean diaspora through interdisciplinary feminist and critical area studies lenses. Emphasis on intersectional anti-colonial, anti-racist, anti-capitalist interactions. Feminist internationalist lens to discuss Korea and Korean diaspora as site of inquiry and field of knowledge. Close examination of several contemporary political issues, such as anti-American and religious theology and positional social movements mobilized by religious groups, and wide range of ideas, institutions, and practices that are animated by complex politics of gender, race, and class. Topics include gender and transnational diasporic activism concerning war, imperialism, and militarism; antimilitarism and xenophobia; pro-democracy movements and labor organizing; feminist movements and popular solidarity and culture; gender and urban mega-churches; faith-based pacifism and conscientious objection to military conscription. P/NP or letter grading.

CM132A. Chicana Feminism. (4) (Same as Chicana/o and Gender Studies CM133B.) Lecture, four and one-half hours. Requisite: course 10. Emphasis on narrative techniques such as characterizations, plot, conflict, setting, point of view, and dialogue. Focus on Chicana/Latina/o/Latino texts and practice. May be concurrently scheduled with CM232A. P/NP or letter grading.

CM132B. Contemporary Issues among Chicanas. (4) (Same as Central American and Latino Studies CM154.) Lecture, two and one-half hours. Requisite: course 10. Overview of conditions facing Chicanas in U.S., including issues on family, immigration, reproduction, employment conditions, Comparative analysis with other Latinas, P/NP or letter grading.

M133. Chicana Lesbian Literature. (4) (Same as Chicana/o and Gender Studies CM133B.) Lecture, four hours. Emphasis on intersection of radical First and Third World feminist politics, lesbian sexuality and its relationship to Chicana identity, representation of lesbianism in Chicana literature, movies. Enforced requisite: course CM110.) Lecture, four hours. Enforced requisite: course 10. Examination of how domestic workers navigate pay and status shape domestic labor in U.S. Examination of how gender, race, class, and citizenship impacts black women’s historical 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 of such discourses for freedom from racism, sexism, and heteropatriarchy as well as their participation in and challenge to social movements, including suffrage, women’s rights, civil rights, and black power. P/NP or letter grading.

141. Gender, Culture, and Capitalism. (4) Lecture, three hours. Dynamic investigation of culture as terrain of production—and of resistance to gendered, racialized, and classed inequalities through active analysis of advertisements, television series, and fairy tales in transformed 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 reproduction of culture under capitalism. P/NP or letter grading.


CM143XP. Healing, Ritual, and Transformation. (4) (Formerly numbered CM143.) (Same as World Arts and Cultures CM140X.) Lecture, four hours. Designed for juniors/seniors. Examination of how various cultural practices of health and healing are individually and collectively. Emphasis on how structural inequalities within health care and medical sciences. Students are required to contribute weekly to service learning component, working with organizations in fields of health and wellness including healers, non-profits, and organizations working for social justice. May be concurrently scheduled with CM243XP. Letter grading.

M144. Women’s Movement in Latin America. (4) (Same as Chicana/o and Central American Studies CM144 and Labor Studies CM144.) Lecture, four hours. Course on women’s movements and feminism in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of women’s movement and feminist consciousness that has spilled out of Latin American women’s movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are concerned with race, sexuality, feminism, and politics. 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 questions that have risen 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 gender, sexuality, and politics. Gender, age, race, and class, collective action, gender and sexual violence, reproduction, and role of law. How have intersecting forms of oppression impacted black women’s historical lives? How does difference constructed through interrelated and overlapping ideologies of race and gender? How do historians uncover their historical lives and what are challenges of such discourses for freedom from racism, sexism, and heteropatriarchy? As well as their participation in and challenge to social movements, including suffrage, women’s rights, civil rights, and black power. P/NP or letter grading.

M146. Feminist Geography. (4) (Same as Geography M144.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. Gender as spatial process, analysis of

M147A. Psychology of Lesbian Experience. (4) (Same as 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 social psychology to explore various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians. Readings from popular materials and formal ethnographic accounts. P/NP or letter grading.


M154G. Selected Topics in Gender Systems. (4) (Same as Anthropology M145Q.) Lecture, three hours. Requisition of some advanced materials appropriate to the course content. P/NP or letter grading. Discussion of major topics of discussion concerning intersections of athletic competition and disability, addressing variety of perspectives and themes on disability and sport, such as passing, integration, competition, athleticism, ability, and masculinity. Sources include readings, film, television, and biographical writings that address sports, body and disability generally, and Special Olympics specifications.

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 constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Sociology M163.) Lecture, three hours. Requisite: course 10 or Sociology 1. Exploration of representation of gender to work, concentrating on the gendered division of labor, including some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction and Everyday Life. (4) (Same as Sociology M164.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Social and human reproduction is global policy issue. Government efforts to influence reproduction are important feature of modern states: political intervention into private life, intimacy, and sexuality. Exploration of politics of reproduction—intersection between politics of reproduction and social policy, the production of change in reproductive behaviors and in some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M166A. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Asian American Studies M166A.) 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 oppression, with focus on Filipino, Vietnamese, Singaporean, and South Asian cultural traditions. P/NP or letter grading.

M165. Psychology of Gender. (4) (Same as Psychology M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and psychological differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M167. Contested Sexualities. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of gender norms. Examination of intersections of gender with race, social class, and culture. Variable topics include identity and category; age, class, gender, and racial diversity; and analysis of contemporary issues affected by contested sexualities. P/NP or 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 juniors/seniors. Overview of field of feminist economics, with an examination of empirical experiences in globalizing world economy. Overview of gender inequalities such as gender division of labor in the household, pay gap between men and women, unemployment, and wage gaps between men and women in different world economy regions; feminist critiques of economics and of theoretical debates within gender and development such as structural adjustment, feminization of labor force, and poverty; examination of efforts and proposals by governments, international policy-making institutions,
and civil society organizations to make economic poli
cies and structures gender-equitable. P/NP or letter grading.

CM170. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Comparative Literature CM170.) Seminar, three hours; discussion, one hour (when scheduled). Designed for seniors/junior. Topics include women and family, women in Confucian ideology, women in literati culture, feminist movement, and women and commu-
nist revolution. P/NP or letter grading.

M170C. History of Women in China, AD 1000 to Present. (4) (Same as History M170C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/junior. Topics include women and family, women in Confucian ideology, women in literati culture, feminist movement, and women and commu-
nist revolution. P/NP or letter grading.

171A. Women, Gender, and Law: Jurisprudence of Sexual Equality. (4) Lecture, four hours. Enforced requisite: course 10. Recommended: 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, equality of outcome, equality of respect, etc.—using specific problems of women (e.g., employment, pregnancy, reproductive rights, con-
policy, access to safe and effective reproductive con-
trol technologies) for purposes of comparison and cri-
tique. Specific focus may vary by instructor (e.g., con-
sideration of theory to issues of gender equity, 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 and Psychology M172.) Lecture, two and one half hours. Designed for seniors/junior. Impact of social, psychological, polit-
ical, and economic forces which impact on interper-
sonal relationships of Afro-American women as mem-
bers of large society and as members of their biolog-
ical and ethnological origins. P/NP or letter grading.

M173B. Women in 20th-Century Japan, (4) (Same as History M173B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/junior. Themes include women in Japanese and world history through primary documents and archival works. 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/senior. Examination of relationship between women and cities; (1) how cities have affected women’s op-
opportunity and social status; (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.

CM175B. Critical Media Literacy and Politics of Gen-
ter: Theory and Production. (4) (Same as Education CM175B.) Seminar, three hours. Corequisite: course CM175B. Use of range of pedagogical approaches to theory and practice of critical media literacy that essen-
tially 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 sched-
uled with course CM278. Letter grading.

CM176L. Critical Media Literacy and Politics of Gen-
ter: Laboratory. (2) (Same as Education CM176L) Laboratory, two hours. Corequisite: course CM176L. Hands-on production experience as integral compo-
nent of course CM176L. Concurrently scheduled with course CM176L. Letter grading.

M180B. Historical Perspectives on Gender and Sci-
cence. (4) (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). De-
signed for seniors/junior. Historical cases illustrating how gender enters practices and concepts of science. In-
topics include gendered conceptions of nature, per-
sona of man of science, role of women in scientific rev-
olution, scientific investigations of women and fem-
inite. P/NP or letter grading.

185. Special Topics in Gender Studies. (4) Lecture, three hours. Preparation: one prior gender studies course. Designed for seniors/junior. Specialized or advanced study in one of gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M185A. Special Topics in American Indian and Gen-
ter Studies. (4) (Same as American Indian Studies M185A.) Lecture, three hours. Variable topics in American Indian and gender studies. May be re-
peated for credit with topic and/or instructor change. P/NP or letter grading.

M186A. Women and Gender, Prehistory to 1792. (4) (Same as History M186A.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
nior/seniors. Exploration of history of women, gender, and sexuality from prehistory to 1792. First half deals with period before 1792 and asks who did gender appear? How and why did patriarchy develop? Topics include evolution of women’s bodies, appear-
ance of gender, women’s contribution to Neolithic rev-
olution, significance of Goddess artifacts, creation of myths, and women and sexuality in different religions. Consideration of effects of European conquest on Me-
soamerican women, women’s power in monarchies, gender demographics, and feminization. Readings, articles, and mini pro-
estations of feminist consciousness in second half. Objects or texts created by women examined or read through gender studies. P/NP or letter grading.

M186B. Global Feminism, 1850 to Present. (4) (Same as History M186B.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
nior/seniors. Introduction to movements for women’s rights (educational, political, three hours); women in consumer society (1980s to 1990s). P/NP or letter grading.

187. Senior Research Seminar: Gender Studies. (4) Seminar, three hours. Preparation: courses 10, 102, 103, 104, 109, 180B, 185A, or special permission. Gender Studies majors or minors. In-depth study of major theme in feminist research. Themes vary by instructor and term. Students pursue independent research re-
lated to course theme, with guidance from instructor, then share and critique other student works in progress. P/NP or letter grading.

188A. Global Feminism 1850 to Present. (4) (Same as History M188A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors/junior. English majors or minors. In-depth study of major theme in feminist research. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. P/NP or letter grading.


191B. Topics in Queer Literatures and Cultures. (5) (Same as English M191B and Lesbian, Gay, Bisexual, Trans-
goan/o and Central American Studies M191B.) Seminar, three or four hours. Enforced requisite: English Com-
position 3. Consult Schedule of Classes for author, period, genre, or subject to be studied in spec-
ific term. May be repeated for credit with topic or in-
structor change. P/NP or letter grading.

191C. Topics in Gender and Disability. (5) (Same as Disability Studies M191C) Seminar, three hours. In-
depth study of major themes in disability studies and gender studies. Individual honors contract required. P/NP or letter grading. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

195. Community or Corporate Internships in Gen-
ter Studies. (2 or 4) Tutorial, eight hours. Requi-
ses: course 102 or 103 or 104, or two upper-division gender studies courses not in 189 to 199 series. Lim-
ited to juniors/senior. Internship in supervised setting in community agency, organization, or business ap-
plication. Contact the course instructor. Student work must apply gender analysis or be focused on some aspect of gender studies. Students meet on regular basis with instructor, provide periodic reports on their experience on a biweekly basis; submit final paper for 4 letter-graded units to be applied toward Gender Studies major or minor. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) (Same as African American Studies M195CE, American Indian Studies M195CE, Asian American Studies M195CE, and Chi-
cana/o and Central American Studies M195CE.) Tuto-
rial, one hour; fieldwork, eight to 10 hours. Limited to juniors/senior. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Consideration 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 coordi-
nator construct series of reading assignments that ex-
amine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Gender Studies. (4) Tuto-
rial, four hours. Preparation: at least two upper-di-
vision gender studies courses (not courses 102 or 103 or 104). Limited to juniors/senior. Individual inten-
sive study, with scheduled meetings to be arranged between faculty member and student. Content may include themes in feminist discourse, application of feminist theoretical perspectives to disciplinary field, or emerging areas of inquiry. Assigned reading and
Graduate Courses

201. Introduction to Interdisciplinary Methods in Gender Studies. (4) Seminar, three hours. Presentation by faculty members of approaches to interdisciplinary studies and discussion of their own research. Departmental seminars, particularly of interdisciplinary sort, to introduce students to wide range of faculty research and to incorporate questions of ethics. Focus on interdisciplinary gender research that integrates knowledge production. Particular issues include approaches to interdisciplinary methods of research, introduction to feminist intersectional and queer theories, emphasis on reflexivity and possibility in research and writing, and incorporating ethics into research design, conduct, and teaching. May be repeated once for credit with instructor change. Letter grading.

202. Key Theories and Concepts in Gender Studies. (4) Lecture/discussion, three hours. Relationship of debates in field to key intellectual and social movements (such as Marxism, poststructuralism, critical race theories, queer studies, indigenous studies, and postcolonial and transnational studies) that have elicited feminist critiques and contributed to development in feminist thought. Issues include analysis of central theoretical approaches and survey of key methodologies, examination of key concepts and debates in gender studies, and identification of debates that have generated key analytics in feminist analysis and gender studies. Course 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 sexuality 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 within and across disciplinary boundaries, cultures, and political discourses, and importance of intersectional, standpoint, and queer theory as critical research tools and as responses to issues of power, domination, oppression, and other logics of identity and difference. May be repeated once for credit with instructor change. Letter grading.

204. Research Design and Professional Development. (4) Required of all gender studies graduate students. To be taken after all other coursework is complete; primarily geared toward proposal writing for dissertations and outside grants. Process of dissertation propostion development by providing structured process with incremental steps toward writing 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. Subfields in Gender Studies. (2 or 4) Tutorial, to be arranged. Preparation: at least two upper-division gender studies courses, minimum 3.0 grade-point average. Requisite: course 102 or 103 or 104. Limited to junior/senior Gender Studies majors and minors. Supervised individual research or investigation under guidance of faculty mentor on specific topic within gender studies. Culling material or project requires of individual contract required. Letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Sociology 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 do gender differences across cultural context? 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 and political issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

M261. Gender and Music in Cross-Cultural Perspectives. (4) (Same as Music M260.) 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, to gender and music in specific historical, social, and cultural contexts. 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 relationship between systems of gender, economy, ideational systems, and social inequality. Selection of ethnographic cases from different literatures. 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 conventional social sciences theory and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.

CM270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Comparative Literature CM270.) Seminar, four hours. Study of women’s literature for graduate students, including readings of narrative texts by contemporary French, German, English, American, Spanish American, African, and Asian women writers from cross-cultural perspective. Common themes, problems, and techniques. Concurrently scheduled with course CM170. S/U or letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM278L.) 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 forms. Study of both theory and practical 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: Theory and Production. (4) (Same as Education CM278L.) Laboratory, two hours. Corequisite: course CM278L. Hands-on production experience as integral component of course CM278L. 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 consultation with faculty sponsor. Interactive seminar in interdisciplinary, critical, and multidisciplinary issues, feminist scholarly research, presentation, and professional development. May be repeated for credit. S/U grading.

296. Doctoral Roundtable. (2) (Same as Sociology M296.) Seminar, two hours. Preparation: satisfactory completion of PhD program first year. Requisites: at least two courses from 201, 202, 203, 210. Limited to program students. Interactive seminar in interdisciplinary, critical, and multidisciplinary issues, feminist scholar- ship, research presentation, and professional development. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar to be arranged. Practice in personal employment as teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprenticeship under active guidance and...
supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

493. Feminist Pedagogy. (2) Seminar, two hours. Preparation: appointment as teaching assistant in department. Introduction to feminist methods of teaching, with emphasis on reciprocity and dialogue and de-emphasis on hierarchy. Required of students while serving as teaching assistants (first time only) 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 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.


Overview
Geography is the study of the natural world and how humans have changed it. It examines the physical Earth and life on it, looking at the world’s diverse cultures, economies, and the environmental problems they produce. Geography addresses many issues about the contemporary world. Some are local, such as documenting the development of ethnic neighborhoods within Los Angeles. Others are regional, such as determining the best locations for nature reserves in California. Many are global, such as the study of greenhouse gases and how they affect climates, culture and resource issues in developing countries, and the impact of information technologies on people in different places.

The work of geographers often takes them out of the classroom into the field to collect information on topics that range from the settlement of new immigrants to the distribution of endangered species, the erosion of shorelines, and the location of high-tech businesses. On other occasions, geographers work in laboratories, using techniques such as computer analysis of satellite photographs to look for changes in river courses and computer modeling of shifts in global vegetation patterns and the distribution of human populations. Research is also conducted in libraries and archives, probing documentary sources on human interaction with the natural world and how that world is imagined.

Career Prospects
Department of Geography graduates have a wide variety of career opportunities because of their combination of geographical/environmental perspectives and technical skills. UCLA geography students have gone on to become university scholars, school teachers, members of governmental and nongovernmental planning, development, and conservation agencies, business executives, lawyers, and specialists in geographical information analysis for government and private business. Because of its 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

Entry to the Major
Admission
To declare the major, students must have completed two geography courses with a grade-point average of 2.0 or better.

Transfer Students
Transfer applicants to the Geography major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, and one statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4 or 6, and Statistics 12.

The Major
Required: Eleven upper-division geography courses (44 units minimum).

Honors Program
The departmental honors program is designed for Geography majors who are interested in completing a research project that culminates in an honors thesis.
To qualify for graduation with departmental honors, students must have a cumulative grade-point average (GPA) of 3.5 or better in all upper-division geography courses and a 3.0 overall GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s), and meeting GPA requirements. Contact the department advising office for more information.

### Policies

#### Preparation for the Major
Each course must be taken for a letter grade.

#### The Major
Each course must be taken for a letter grade.

All geography upper-division courses numbered 100 and higher may be applied toward the major, with a few exceptions. Contact the advising office for more information.

### Geography/Environmental Studies BA

The major in Geography/Environmental Studies develops and deepens students’ understanding of environmental issues; it explores problem-solving approaches from an interactive people/nature viewpoint and involves analysis of social, physical, and biotic environmental systems. The major’s uniqueness lies in its emphasis on its geographical perspective of human impacts on natural systems, as well as 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

### Entry to the Major

#### Admission
To declare the major, students must have completed two geography courses with a grade-point average of 2.0 or better.

#### Transfer Students
Transfer applicants to the Geography/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 people and ecosystems course, and one statistics course.

Geography 7 must be taken at UCLA in order to fulfill the preparation for the major requirement, and, as the enforced requisite for courses 180, 181A, and 182A, 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.

### Requirements

#### Preparation for the Major
**Required:** Geography 1 or 2, 3 or 4 or 6, 5, 7, and Statistics 12.

#### The Major

#### Honors Program
The departmental honors program is designed for Geography/Environmental Studies majors who are interested in completing a research project that culminates in an honors thesis. To qualify for graduation with departmental honors, students must have a cumulative grade-point average (GPA) of 3.5 or better in all upper-division geography courses and a 3.0 overall GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s), and meeting GPA requirements. Contact the department advising office for more information.

### Policies

#### Preparation for the Major
Each course must be taken for a letter grade. Students are strongly advised to complete all preparation for the major courses before beginning upper-division work in the major.

#### The Major
Each course must be taken for a letter grade.

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.

### Undergraduate Minors

#### Geography Minor
The Geography minor is designed for students who wish to deepen and/or broaden their major program of study with a distinctive yet flexible program of courses encompassing the relationship between environment and society. The minor allows students to develop a coherent strategy for understanding and explaining the manner in which people and the Earth interact. Students have the opportunity to explore the origins, development, morphology, and processes of landscapes inherited from nature, as well as those institutions and cultural, economic, political, and social patterns associated with the human development, occupancy, organization, perception, and use of these landscapes.

#### Admission
To enter the minor, students must have completed at least one geography course at UCLA with a grade of C or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall.

#### The Minor
**Required Lower-Division Courses (10 units):** Two courses from Geography 1, 2, 3, 4, 6.

**Required Upper-Division Courses (20 units):** Any five upper-division geography courses, with a few exceptions. Contact the advising office for more information.

#### Policies

It is recommended that students take the lower-division courses before attempting upper-division courses.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

### Geography/Environmental Studies Minor
The Geography/Environmental Studies minor is intended for students interested in environmental issues and emphasizes a systems approach to gaining a causal understanding of major environmental problems facing our society and the world at large. The uniqueness of the minor lies in its geographical perspective on the impact, at various geographical scales, of human activity on natural systems and on the implica-
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): Geography 5 and one course from 1, 2, 3, 4, or 6.
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
It is recommended that students take these courses before attempting upper-division courses. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval. Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Geospatial Information Systems and Technologies Minor
The Geospatial Information Systems and Technologies minor is designed to provide students with a strong background in the use, application, and development of geospatial/environmental research techniques and methods.

Admission
To enter the minor, students must have completed Geography 7 with a grade of B or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall. For majors in Geography or Geography/Environmental Studies, only two upper-division courses may overlap between the major and this minor.

The Minor
Required Lower-Division Courses (10 units): Geography 7, Statistics 12.
Required Upper-Division Courses (24 units minimum): Geography 180, 181A, 181B, 182A, and any two courses selected from 181C, 182B, 184, M186, and 199 (4 units with approval of the faculty adviser).

Geography
Lower-Division Courses
1. Earth’s Physical Environment. (5) Lecture, three hours; laboratory, two hours. Study of Earth’s physical environment, with particular reference to nature and distribution of landforms and climate and their significance to people. P/NP or letter grading.

Policies
Each upper-division course must be completed with a grade of C or better. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. With the exception of Statistics 12, transfer credit is not accepted toward this minor except on rare occasions.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors
Geography MA, CPhil, PhD
The department offers the PhD degree in Geography (an MA degree may be earned in the process of completing PhD requirements). Student research projects are conducted in collaboration with a faculty adviser and advisory committee. Graduate students work in most major areas of geography and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 Applied Geospatial Information Systems and Technologies
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
Lower-Division Courses
1. Earth’s Physical Environment. (5) Lecture, three hours; laboratory, two hours. Study of Earth’s physical environment, with particular reference to nature and distribution of landforms and climate and their significance to people. P/NP or letter grading.
3. Cultural Geography. (5) Lecture, three hours; discussion, two hours. Introduction to cultural geography of modern world, with examination of key concepts of space, place, and landscape as these have shaped and been shaped by connections between societies and their natural environments. Examples from variety of landscapes and places since 1800 and especially from Los Angeles region. P/NP or letter grading.
4. Globalization: Regional Development and World Economy. (5) Lecture, three hours; discussion, two hours. Economic geography explores spatial distribution of all forms of human productive activity at number of geographical scales—local, regional, national, and global. Key theme is impact of increasingly powerful global economic forces on organization of production. P/NP or letter grading.
5. People and Earth’s Ecosystems. (5) Lecture, three hours; laboratory, two hours. Exploration of ways in which human activity impacts natural environment and how modification of environment can eventually have significant consequences for human activity. Examination, using case studies, of real-world problems that confront us today. P/NP or letter grading.
6. World Regions: Concepts and Contemporary Issues. (5) Lecture, three hours; discussion, two hours. Interdisciplinary and historical approach to modern peoples, their differences in wealth or poverty, and their local origins of food production. Brief introduction to physical geography and biogeography of each region. Discussion of each region’s peoples, languages, foods, prehistories, and histories. Letter grading.
7. Introduction to Geographic Information Systems. (5) Lecture, three hours; laboratory, two hours. Designed for freshmen/sophomores. Introduction to fundamental principles and concepts necessary to carry out sound geographic analysis with geographic information systems (GIS). Reinforcement of key issues in GIS, such as geographic coordinate systems, map projections, spatial analysis, and visualization of spatial data. Laboratory exercises use database query, manipulation, and spatial analysis to address real-world problems. P/NP or letter grading.
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. 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. Seminar topics advertised in department during previous term. P/NP or letter grading.
10. 88GE. Seminar Sequence: Special Topics in Geography. (5) Seminar, three hours. Enforced requisite: course 5. Designed for sophomores/juniors. Exploration of topics in greater depth through supplemental readings, images, and discussions. P/NP or letter grading.
11. 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.
12. 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.
13. 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 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

Environmental Studies and Natural Systems

101. Principles of Geomorphology. (4) (Formerly numbered 100.) Lecture, three hours; reading period, one hour. Requisite: course 1. Study of processes that shape world's landforms, with emphasis on weathering, mass wasting, erosion, transportation, depositions; energy and material transfers; space and time considerations. P/NP or letter grading.

M102. Soils and Environment. (4) (Formerly numbered M127.) (Same as Ecology and Evolutionary Biology M127 and Environment M102.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.

M102L. Soils and Environment: Field. (1) (Formerly numbered M127L.) (Same as Ecology and Evolutionary Biology M127L and Environment M102L) Laboratory, one hour; field excursions. Corequisite: course M102. Investigations and demonstrations supporting material in course M102, including excavating, 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 M107.) (Same as Environment M103.) Lecture, three hours; discussion, one hour. Enforced requisites: one course from 1, 2, Environment 10, Life Sciences 7B, or 116. Students for juniors/seniors. Emphasis on the study of processes of soil formation and hazards posed by erosion, sedimentation, development, and pollution, and techniques needed to conserve soil and maintain environmental quality. Scope includes agriculture, forestry, mining, and other rural uses of land. P/NP or letter grading.

106. World Vegetation. (4) (Formerly numbered 108.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Description, distribution, and characteristics of world's principal vegetation patterns. P/NP or letter grading.

107. Forest Ecosystems. (4) (Formerly numbered 111.) Lecture, three hours; field trips. Requisite: course 2 or Life Sciences 7B. Emphasis on forest vegetation and evaluation of ecological principles as they apply to forests. Emphasis on constraints of physical environment, biotic interactions, succession, disturbances, and long-term environmental change. P/NP or letter grading.


109. Biogeography of Plant and Animal Invasions. (4) (Formerly numbered 116.) Lecture, three hours; reading period, one hour. Requisite: course 1 or 2 or 5. 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. (4) (Formerly numbered M117.) (Same as Ecology and Evolutionary Biology M131.) Lecture, three hours; field trips. Requisite: course 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 and human disturbance to ecosystems. P/NP or letter grading.

116. Climatology. (4) (Formerly numbered 104.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of many relations between climate and world of man. Application of basic energy budget concepts to microclimates of relevance to ecosystems of diverse climates, humans, and urban places. P/NP or letter grading.

117. Tropical Climatology. (4) (Formerly numbered 102.) Lecture, three hours. In-depth exploration of development of tropical climate, with special reference to hurricanes, ENSO, and monsoons. Examination of human interaction with tropical climate processes and human-induced climate change in tropics. Use of climatological data to foster sound environmental management of climate-related resources in tropics. P/NP or letter grading.

118. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) (Formerly numbered M106.) (Same as Applied Science and Oceanic Sciences M106.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including climate change, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

120. Hydrology. (4) (Formerly numbered 105.) Lecture, three hours; reading period, one hour. Examination of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas and development, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and Darwinian evolution. Examination of many relations between climate and world of man. Application of basic energy budget concepts to microclimates of relevance to ecosystems of diverse climates, humans, and urban places. P/NP or letter grading.

125. Environmentalism: Past, Present, and Future. (4) (Formerly numbered M115.) (Same as Environment M125 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Focus on the socioeconomic, political, and cultural origins of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas and development, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and Darwinian evolution. Examination of many relations between climate and world of man. Application of basic energy budget concepts to microclimates of relevance to ecosystems of diverse climates, humans, and urban places. P/NP or letter grading.

126. Environmental Change. (4) (Formerly numbered M131.) (Same as Environment M126.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes in the last 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 of natural and anthropogenic changes on forests. P/NP or letter grading.


130. Food and Environment. (4) (Formerly numbered 132.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Examination of the role of environmental and cultural transformations. P/NP or letter grading.

131. Human Impact on Biophysical Environment. (4) (Formerly numbered M108.) (Same as Environment M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.

133. Humid Tropics. (4) (Formerly numbered 113.) Lecture, three hours. Requisite: course 2 or 5 or Life Sciences 7B. Designed for juniors/seniors. Examination of humid tropics, with emphasis on rainforests, their ecological principles, and forms of land use. Letter grading.

134. Africa and Asian Diaspora in Americas. (4) (Formerly numbered M114.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Historical-geographical examination of Africa's role in Americas, with emphasis on environment, agriculture, food systems, and modern crops. P/NP or letter grading.

136. Health and Global Environment. (4) (Formerly numbered 125.) Lecture, three hours; reading period, one hour. Impact of environment and lifestyle on individual health examined from geographical perspective, with examples from both developed and developing countries. P/NP or letter grading.


139B-139C. Problems in Geography. (4–4) (Formerly numbered 139B-139C.) Seminar, three hours; discussion, one hour. Preparation: completion of three courses in one concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from courses within one concentration. P/NP or letter grading. 139B, Biogeography; 139C, Culture and Environment in Modern World.

Human Systems

140. Social Geography. (4) (Formerly numbered 147.) Lecture, three hours; discussion, one hour. Study of spatiality of social differences such as race, class, gender, age, sexuality, location. Critical explorations of identity, social categories, and spatial structures. Importance of space and place in social life. P/NP or letter grading.

141. Cultural Geography of Modern World. (4) (Formerly numbered 133.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors and graduate students. Historical and structural approach to cultural geography of modern world system, with particular emphasis on structure and functioning of its core, semi-periphery, and periphery. P/NP or letter grading.

142. Past People and Their Lessons for Our Own Future. (5) (Formerly numbered M153.) (Same as Anthropology M148 and Honors College 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 grading.

144. Feminist Geography. (4) (Formerly numbered M146.) (Same as Gender Studies M146.) Lecture, three hours; discussion, one hour. Critical engagement with feminist conceptual framework gender as process, spatial analysis of feminist geographic theory and methods, landscapes of gender, challenges of representing gender. Spaces of femininity, masculinity, sexuality and gender. P/NP or letter grading.

145. Slavery and Human Trafficking. (4) Lecture, three hours; discussion, two hours (when scheduled); reading period, one hour. Offered either as 4-unit course without discussion sessions or 5-unit course with discussion sessions. Requisite: course from 3, 4, Anthropology 3, Gender Studies 10, or Sociology 1. Limited to juniors/seniors. Exploration of how, why, and to what ends human trafficking has been conceived and understood as a global problem, with a particular focus on the international response. Examination of recent activist, governmental, scholarly, and media responses, and reflection on what is and is not accomplished by them. Ques-
tions of human trafficking are implicitly geographical, requiring consideration of ways freedom is spatially defined and how movement across borders is encouraged and regulated. How questions of labor, migration, sexuality, rights, ethics, embodiment, representation, and governance pertain to human trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery and freedom in world today using examples from U.S. and Europe, with focus on Phoenicians as case study for exploring both contemporary examples and historical forms of enslavement. P/NP or letter grading.

146. Environmental Justice and Climate Change. (Formerly numbered 140.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of environmental quality and social justice. Premise that all people have the right to live in clean environment and access to sources to sustain health and livelihood. Investigation of under what conditions some people are denied this basic right and how some have fought back. Consideration of how certain groups of people experience effects of pollution or environmental hazards more than others, or lack basic resources; what social relations of production and power that contribute to these outcomes are; and how people have organized to demand environmental justice. P/NP or letter grading.

148. Political Geography. (Formerly numbered 140.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatiality of political activity, spatial, physical, and cultural; political control over space; component to political strategies. Studies at local, national, state, and global scales. P/NP or letter grading.

149. Border Studies: Globalization, Nation, Identity. (Formerly numbered 134.) Lecture, three hours; discussion, one hour (when scheduled). Analysis of history, production, and functions of contemporary borders. Designed to broaden understanding of and challenge dominant narratives about many physical, political, and social borders that shape our daily lives, from national boundaries to secure fences to discoveries about race and gender. P/NP or letter grading.


151. Uneven Development Geographies: Prosperity and Impoverishment in Third World. (Formerly numbered 141.) Lecture, three hours; discussion, two hours (when scheduled). Geographical perspective on part of globe commonly called Third World (global South). How development has shaped livelihood possibilities, and how global processes stretching back centuries, and transformative possibilities of Third World agency. World societies seek to transform Third World into their own image through theories and practices of colonialism, development, and globalization. Study of those theories and Third World alternatives to examine how they have shaped livelihood possibilities. Social differences between stagnant live- lihood possibilities for the Third World majority and minorities that prosper massively, as well as geographical differences (culturally, environmentally, and socially) across Third World. Examination of possibilities of Third World agency, ranging from internatione collaboration to village activism, asking whether such agency and alternative imaginaries can enable Third World residents to break with First World developmentalist. P/NP or letter grading.

M153. Transportation Geography. (Formerly numbered M149.) (Same as Urban Planning M150.) Lecture, three hours. Requisite: course 3 or 4. Designed for juniors/seniors. Study of geographical aspects of transportation. Emphasis on characteristics and functions of various modes and on complexities of intra-urban transport. P/NP or letter grading.

158. Population Geography. (Formerly numbered 142.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of social and behav-ioral perspectives influencing people in their pat- tertes of demographic change, migration, and mobility, with special emphasis on spatial relationships and selected case studies. P/NP or letter grading.

159. Population in Interacting World. (Formerly numbered 143.) Lecture, three hours. Provides multi-disciplinary understanding of and appreciation for human population problems in different parts of world and at different geographical scales—from local to global. Particular emphasis on understanding and critically reflecting on (1) contemporary population problems at global, national, and local scale, including both dramatic decline and persistence of high levels of fertility in parts of developing world, record low fertility and population aging in high-income countries, causing leg of international migration, refugee crises, massive rural to urban migrations, and creation of mega-cities in less developed world, (2) policies adopted to address these problems, such as family planning policies to reduce fertility, immigration policies, and so on, and (3) gender dimension of contemporary population problems and policies. P/NP or letter grading.

160. Urban Geography. (Formerly numbered 150.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Analysis of development, functions, spatial patterns, and geographical problems of cities. P/NP or letter grading.

161. Cities and Social Difference. (Formerly numbered 151.) Lecture, three hours; discussion, one hour. City landscapes embody best and worst of U.S. so- ciety; diversity and poverty, opportunity and violence. Study of urban spatial structures, social diversity, inequality, and conflicts over uses and meanings of city space. Social urban geography. P/NP or letter grading.

162. Ethnicity in American Cities. (Formerly numbered 144.) Lecture, three hours; reading period, two hours. Limited to juniors/seniors. Designed to en- courage and facilitate critical thinking about geo- graphical aspects of ethnicity in contemporary America. Uses a comparative perspective to explain changing distributions of ethnicity, social and cultural geography, and political behavior, and adjustment problems ethnic groups face in contemporary American cities. P/NP or letter grading.

160A. Problems in Geography: Urban and Regional Development Studies. (Formerly numbered 150A.) Seminar, three hours; reading period, one hour. Prepa- ration: completion of three courses in one concentra- tion. Designed for seniors. Seminar in which stu- dents carry out intensive research projects developed from courses within one concentration. P/NP or letter grading.

Regions

171A. North America. (Formerly numbered 180.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Delimitation and analysis of principal geographical regions of U.S. and Canada. P/NP or letter grading.

171B. California. (Formerly numbered 184.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Systematic and regional treatment of geography of California, including physical, cultural, and environmental aspects and detailed studies of various regions. P/NP or letter grading.

171C. Metropolitan Los Angeles. (Formerly numbered 196.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of origins, growth processes, internal structure and pattern, in- teractions, environmental and spatial problems of Los Angeles metropolitan area. P/NP or letter grading.

172A. South America. (Formerly numbered 182A.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geo- graphic factors, physical and cultural, that are basic to understanding historical development of South America and contemporary economic and cul- tural geography of individual Spanish-speaking coun- tries. P/NP or letter grading.

172B. Central America. (Formerly numbered 181.) Seminar, two hours; laboratory, one hour. Located at center of American continent, Central America is central player in production of many important crops for world, and epicenter of massive migration waves. Exploration of Central America to understand 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 exploitation of human freedom/differentiation has created expansive Central American diaspora that produces effects in isthmus and abroad. Letter grading.

172C. Brazil. (Formerly numbered 182B.) Lecture, three hours; reading period, one hour. Designed for ju- niors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Portuguese South America and contem- porary economic and cultural geography of Brazil. P/NP or letter grading.

173. Cities of Europe. (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/NP or letter grading.

174. The Mediterranean World. (Formerly numbered 183.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geo- graphic factors, physical and cultural, that are basic to understanding historical development of Mediterra- nean region, with emphasis on 1500s to present. Intro- duction to great disputes in history and ecology center- ed on this region and interaction of nations along shores of Mediterranean basin. P/NP or letter grading.

175. Japan in World: Culture, Place, and Global Connections. (Formerly numbered 139.) Lecture, three hours; reading period, one hour. Focus on ques- tions of culture and place in Japan. Exploration of ways that these questions—and Japan itself—have been shaped by historical and contemporary interac- tions involving people in both Japan and other parts of world. P/NP or letter grading.

175B. Contemporary China. (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. Dynamics that have led to 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/NP or letter grading.

176A. Southeast Asia. (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/NP or letter grading.

Procedures

178. Conservation Geography Field and Profes- sional Practices. (Fieldwork, eight hours; research group meeting, three hours; one-, three-, and four-day field trips. Limited to senior Geography and Geo- graphy/Environmental Studies majors. Enrollment by application. Field focus on California vegetation and its response to current and future climate change. Stud- ents learn to collect field data, and to conduct field vegetation research. Students learn to work as profes- sional research consultants in teams, develop con- sulting research proposals, consultant assessment re- ports, and present those orally and in written format to clients. Field trips to Mojave Desert, Great Basin Desert, pinyon pine woodland, pine-fire forest, alpine tundra, White Mountains, Sierra Nevada, and coastal pine and redwood forests. P/NP or letter grading.

180. Cartography. (Formerly numbered 167.) Lect- ure, two hours; laboratory, four hours. Designed for ju- niors/seniors. Survey of field of cartography. Theory and construction of map projections, compilation procedures, principles of generalization, symbolism, terrain representation, lettering, drafting and printing, and map reproduction methods. P/NP or letter grading.
181A. Intermediate Geographic Information Systems. (4) (Formerly numbered 168.) Lecture, two hours; laboratory, two hours. Enforced requisite: course 7. Extension of basic concepts presented in course 7. How geographic and spatial analyses inform, interpret, and support scientific inquiry into physical, biological, cultural, and social phenomena. Discussion of range of decisions and critical judgments necessary to carry out sound spatial analyses. Development of technical proficiency within geographic information systems (GIS) environment. P/NP or letter grading.

181B. Advanced Geographic Information Systems. (4) (Formerly numbered 170.) Lecture, three hours; discussion. Enforced requisite: course 181A. Introduction to full geographic information systems (GIS) functionality, using ARC/INFO on UNIX workstations. Spatial manipulation, query, and computation of datasets carried out in project-oriented approach. P/NP or letter grading.

181C. Geographic Information Systems Programming and Development. (4) (Formerly numbered 173.) Lecture, two hours; laboratory, two hours. Enforced requisite: course 181A. Introduction to fundamental concepts and architecture of programming objects in widely used geographic information systems (GIS), and programming in GIS environment. Topics include GIS data models, development environments, variety of programming languages. Lectures followed by laboratory exercises. P/NP or letter grading.

182A. Introduction to Remote Sensing. (4) (Formerly numbered 169.) Lecture, two hours; laboratory, one hour. Enforced requisite: course 182. Digital processing methods for manipulating and analyzing image data. Topics include statistical description, geometric and radiometric corrections, classification, image enhancement and filtering, and change detection schemes. Introduction to procedures necessary for working with laboratory exercises and student project. P/NP or letter grading.

182C. Advanced Remote Sensing. (5) (Formerly numbered 174.) Lecture, three hours; laboratory, two hours. Enforced requisite: course 182A. Digital processing methods for manipulating and analyzing image data. Topics include statistical description, geometric and radiometric corrections, classification, image enhancement and filtering, and change detection schemes. Introduction to procedures necessary for working with laboratory exercises and student project. P/NP or letter grading.

183A. Spatial Data Analysis and Geovisualization. (4) (Formerly numbered 177.) Lecture, three hours; laboratory, two hours. Enforced requisite: course 183. Use of geographic information systems (GIS) software. P/NP or letter grading.

187. Research and Writing in Human Geography. (4) (Formerly numbered 151.) Seminar, three hours. Limited to seniors. Writing and research are two key aspects of what human geographers do. Students improve writing through proposing and conducting self-directed research, and conferences with the idea of topic of interest. Students learn process of doing geography research, including how to ask good research questions, how to search for relevant sources, how to construct argument, how to build literature review, and how to properly cite and incorporate academic sources. Culminating final paper on topic of choice. Weekly class workshops offer opportunities to discuss and practice useful feedback and opportunity to learn how to offer feedback and how to incorporate feedback into editing their work. Letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced 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 to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honor 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-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. Honor content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Geographical. (4) Seminar, three hours. Research seminars on selected topics in geography. Some sections may require prior coursework. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward departmental major requirements. 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 literary in field of study. Credit may be applied toward graduate research seminar. May be repeated for credit with topic change. P/NP grading.

195. Community and Corporate Internships in Geography. (4) Seminar, four hours. Limited to juniors/seniors. Internship of eight to 10 hours per week in supervised setting in community agency or business. Students are expected to have an advisor and to provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

198A-198B. Honors Research in Geography I, II. (4–5) Tutorial, to be arranged. Preparation: 3.25 grade-point average overall, at least five upper-division geography courses with 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comparable research project under direct supervision of one or two faculty members. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 6) Tutorial, to be arranged. Limited to juniors with B average in major or seniors. May be repeated for maximum of 16 units. P/NP or letter grading.

Graduate Courses

Core

200A. History and Structure of Modern Geography. (4) Lecture, three hours; reading period, one hour. Evolution of field of geography in 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as modern academic discipline. S/U or letter grading.

200B. Seminar: Geographical Inquiry. (1) Seminar, one hour. Discussion of geographical research within context of professional philosophical debates concerning nature of scientific inquiry, S/U or letter 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 methodology and methods in social-cultural geographical research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action research, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.


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. Graduating 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, satellite and solar 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. Requisites: courses 168, Statistics 12. Development of broad range of knowledge and skills necessary to 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. Requisite: course 167. Study of aerial photographs and...
Remote Sensing

214. Advanced Projects in Geographic Information Systems (GIS)/Remote Sensing. (5) Lecture, one hour; laboratory, three hours. Recommended requisites: courses 212, 213. Advanced project work with emphasis on developing, applying, and analyzing remote sensing data in GIS. Project topics include analysis of ecological change, natural resource inventory, and urban development. Petition for credit with topic change. S/U or letter grading.

215. Advanced Field and Laboratory Methods in Biophysical Geography. (4) Laboratory, five hours; fieldwork, five hours. Examination of advanced field and laboratory procedures used in contemporary biophysical geography. Topics include global change, ecosystem function, and remote sensing. 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. Requisite: course 116. In-depth study of selected topics in medical geography and intense review of recent research. S/U or letter grading.

Human Geography
M224. International Migration. (4) (Same as Sociology M238B.) Lecture, three hours. Further exploration of key current theoretical debates in study of international migration. Petition for credit with instructor change. Topical topics include case studies on which 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 basic literature and schools of thought on development theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on various industries. Petition for credit with instructor change. S/U or letter grading.

M229B. Ecological Issues in Planning. (4) (Same as Urban Planning M234B.) Lecture, three hours. Recommended preparation: Urban Planning M265. Science and politics of modern environmentalism and planning in light of transformations inherent in globalization 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 the dominant model for national and international conservation practices. Included in Muirist model of ideas is untrammeled nature with people-less set-asides for spiritual and scientific contemplation of nature; there environmental and policy change as key idea in conservation and fragment biology. At opposite end is environmental planning devoted to infrastructure in hyper-human habitats (cities). Exploration 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 projects growing out of course 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.

M230A. Theories of Regional Economic Development. I. (4) (Same as Public Policy M240 and Urban Planning M230A.) 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.

M230B. Globalization and Regional Development. II. (4) (Same as Urban Planning M230B.) Lecture, three hours; discussion, one hour. Exploration 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 economic development, and social structure, along with implications for policy. Letter grading.

Seminar: Social Geography. (4) Seminar, three hours; reading period, one hour. Process of doing research and conducting research. Examination of ethical issues involved in conducting research. Letter grading.

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.

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.

Seminar: Urban Geography. (4) Seminar, three hours; reading period, two hours. Requisite: course 120. Examination of contemporary perspectives on urbanization and issues of sustainable urban development. May be repeated for credit. S/U or letter grading.

Seminar: Geographic Thought. (4) Seminar, three hours; reading period, two hours. Design 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 different 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 major theories and debates of cultural landscape in different geographic environments. S/U or letter grading.

248. Advanced Topics in Economic Geography. (4) Seminar, three hours; reading period, three hours. Requisite: course 245. Advanced study of economic theories and principles S/U or letter grading.


250. Advanced Topics in Urban Geography. (4) Seminar, two hours; discussion, one hour; reading period, one hour. General survey of the literature on urban geography. S/U or letter grading.

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 current frontiers in geomorphology, climatology, oceanography, hydrology, and soils. S/U or letter grading.

256. Regional Climate and Terrestrial Surface Processes. (4) Seminar, three hours. Designed for graduate students. Topics include physical concepts and basic principles of land-atmosphere interactions. Exploration of topics in terms of regional and global perspective. Requisites include basic knowledge of climate, climate systems, and physical geography research. 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; reading period, two hours. Discussion of how contemporary 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.


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. Humid Tropics. (4) Seminar, three hours; reading period, two hours. Designed for graduate students. Topics include biophysical and cultural com-
ples 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. Climate preparation: first year of calculus and acquaintance with Fortran IV. Requisite: course 104. Introduction to tools and concepts of environment 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. Intensive review and analysis of physical and cultural factors influencing plant distributions. S/U or letter grading.

283. Advanced Topics in Geomorphology. (4) Lecture, two hours; discussion; one hour; reading period, eight hours. Preparation: two courses from 101, 105, M107. Required core course 100. Analysis of geomorphic theories since scientific revolution, with emphasis on catastrophe, uniformitarianism, glacial theories, isostasy and eustasy, evolution and cyclic cycle, thermodynamics and mechanics, quantification, and current paradigms. View of each theme in its contemporary milieu. S/U or letter grading.

285. Advanced Topics in Environmental Change. (4) Seminar; three hours; reading period, two hours; fieldwork, three hours. Preparation: one course from 271, 280, 283, or one appropriate graduate course in atmospheric and oceanic sciences or Earth, planetary, and space sciences. Analysis of changing physical environment of Quaternary period. May be repeated for credit. 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 on cultural/historical/geographical perspectives on national period; themes and periods 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.

M292. Seminar: Political Geography of Italy. (4) (Same as Italian M241.) 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.

296. Advanced Regional Geography: Selected Regions. (4) Lecture, three hours; discussion, three hours. 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.

1. Required Colloquia

299A. Research Group Seminars: Issues in Human Geography. (1) Seminar, one hour. Biweekly seminar to discuss current research in human geography. Topics vary from year to year. May be repeated for credit. S/U grading.

299B. Research Group Seminars: Issues in Biophysical Geography. (1) Formerly numbered C299Bl Seminar, one hour. Biweekly seminar to discuss current research in biophysical geography. Topics vary from year to year. May be repeated for credit. 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 analysis of current geopolitics, with emphasis on geographic impacts of recent global events. S/U grading.

299E. Agriculture and Food Studies Colloquium. (1) Seminar, one hour. Current scholarly debates surrounding topics of agriculture and food. Interdisciplinary discussion, with focus on research that explores confluence of production and consumption studies vis-à-vis agriculture and food. Group discussion of recently published works in progress by participants, and distinguished guest speakers. S/U grading.

Special Studies

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

Master of Applied Geospatial Information Systems and Technologies

401. Applied Geospatial Data Science. (4) Lecture, two hours; laboratory, two hours. Project-based exploration of essential methods and techniques in geographic information systems (GIS) and geospatial technology with focus on modern, spatial analysis and geospatial computing paradigms, data visualization, and data collection. Topics in advanced geospatial analysis and visualization are discussed, including real-world problems and answering generative research questions. Topics include research design, automation, and multi-step geospatial analysis methodology. Letter grading.

410. Geospatial Databases and Data Management. (4) Lecture, two hours; laboratory, two hours. In this course, students will learn how to design and develop databases for the storage and management of spatial data. Students will learn how to query and retrieve data from databases, as well as how to design and build databases that are optimized for performance. S/U or letter grading.

411. Geospatial Imagery Analysis. (4) Lecture, two hours; laboratory, two hours. Requisite: course 401. Introduction to field of remote sensing and image analysis, primarily involving environmental monitoring and Earth systems. Core concepts in remote sensing, processes by which images are captured by sensors mounted on remote platforms including satellites and airplanes, and key characteristics of captured imagery. Project-based instruction in techniques for processing, analyzing, and visualizing remotely sensed imagery and raster data with proprietary, open-source, and cloud-based remote sensing and image analysis software. Letter grading.


413. Applied Geostatistical Statistics. (4) Lecture, two hours; laboratory, two hours. Requisite: course 401. Concepts and techniques fundamental to spatial statistics and analysis and visualization of data with geographic dimension. Introduction to statistical computing and tabular data processing and analysis techniques. Students learn to apply common spatial analysis methods in practical context. Emphasis on essential concepts in spatial statistics, including spatial autocorrelation, analysis, cluster analysis, spatial regression analysis, point-pattern analysis, and space-time modeling. Letter grading.

414. Programming for Geospatial Data Science II. (4) Lecture, two hours; laboratory, two hours. Requisite: course 401. Introduction to technologies and techniques that support growing field of interactive Web-based geographic information systems and mapping. Study of theory and concepts underlying this rapidly growing field. Applied training is provided in Web map design, development, and programming. Students learn to develop sophisticated interactive Web maps and applications both based on using Web mapping platforms and also by coding custom Web maps integrating HTML, CSS, JavaScript programming language, and Web mapping code libraries. Letter grading.

415. Geospatial Data Science Futures. (4) Seminar, two hours; laboratory, two hours. Requisite: course 401. Applied exploration of emerging technologies and methods in geospatial technology with focus on learning state-of-art geospatial data analysis and management techniques. Topics of interest introduced in seminar format by subject matter experts and faculty. Through discussion and biweekly project work, geospatial research methods are situated in their broader context. Application of innovative geospatial research methods to better understanding of spatial data. Letter grading.

488. Capstone I: Geospatial Capstone Project. (4) Laboratory, four hours. Requisites: courses 401, 498. Completion of required capstone project research. Students meet weekly with faculty advisor to discuss project progress, learn technical writing skills, and synchronize goals for timely completion of project. Successful completion and approval of capstone project is required for satisfactory completion of course. May be repeated for credit. Letter grading required to meet MAST program requirements. S/U or letter grading.

Special Studies

495. Teaching College Geography. (2) Seminar, one hour; laboratory, three hours. Introduction to 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 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Independent study. May be repeated for credit. S/U grading.


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 Upper-Division Courses (28 to 32 units): (1) Gerontology M108, (2) four courses from Gerontology M104C, M104D, M119O, M119X, M142XP, M150, M165, Psychology 124C, 150, (3) two terms of Gerontology 195 or 199.

Policies

Students who have completed Clusters 80A with a grade of B or better, and have an overall grade-point average of 2.0 or better, do not need to take Gerontology M108. Successful completion of this cluster sequence (Clusters 80A, 80BX, 80CW) counts for M108 and one elective course.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Gerontology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion 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.

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. Designed 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 sciences 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 policy 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. (5) (Same as Public Affairs M130 and Social Welfare M108) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that are based on variety of recent research frontiers. Use of conceptual frameworks to increase relevance of aging to students’ lives and enhance their 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, three hours. Requisite: Psychology 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alternations 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, physiological, and psychosocial perspectives, with emphasis on differences between females and males concerning physical and social changes that occur with aging and how this impacts on emotional well-being and human sexual response. P/NP or letter grading.

M142XP. Intergenerational Communication across Lifespan. (Formerly numbered M142SL) (Same as Public Affairs M129XP and Social Welfare M142XP) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in college? How do you talk to your grandparents? Does your family talk well to one another as group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, and their interactions have significant 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 society? How have U.S. responses to persons 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 assess 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 under-graduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Gerontology. (2 to 4) Tutorial, six to 12 hours. Requisite: course M108, or Clusters 80A and 80BX. Limited to juniors/seniors. Students propose their own ideas for internship project and petition for its approval. Approval of internship is contingent on possessing relevance in field of gerontology. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in Gerontology. (4) Tutorial, to be arranged. Requisite: course M108, or GE Clusters 80A and 80BX. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Submission of weekly writing assignments and research paper at end of term. Eight units of 199 (or 195CE) required for successful completion of minor. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office. Letter grading.

GLOBAL HEALTH
Interdisciplinary Minor
College of Letters and Science
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)
Ippolito A. Kalofanos, MD, PhD (Anthropology, 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 biologi-cal 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
Requisite Lower-Division Courses (10 units): Two courses from Civil Engineering 58XP, Clusters 80A, 80BX, BDCW, Community Health Sciences 91, Global Studies 1, History 3D, Honors College 1, 14, 26, International and Area Studies 1, Molecular, Cell, and Developmental Biology 60, 70, Nursing 50, Statistics 13, World Arts and Cultures 2, 3.

Required Upper-Division Courses (20 to 25 units): Global Health 100 and four courses from the following theme areas, with a maximum of two courses from any single area: Art: World Arts and Cultures 144, C158, C159, 160.

Community Health: Community Health Sciences 100, 161, CM170, 187A, 187B, 195, Health Policy and Management 140, Medicine M160A, M160B, Psychiatry and Biobehavioral Sciences 175, Psychology 150.

Environmental Health: Environment 166, M167, Environmental Health Sciences 100, C185A, C185B.

Genetics: Honors College 141, Society and Genetics 162, 163.


Health Humanities and Communication: English Composition 131C, History 179A, 179B.


Gender Studies 104, 105, 125, CM143XP, Honors College 124, Psychology 129C, M163, Sociology 143, 170.


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 critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

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 the world. Hands-on experiential courses offered for students participating in UCLA Travel Study Program. Field trips included to gain first-hand experience. May be repeated with topic and/or location change. Offered in summer only. P/NP or letter grading.

140. Equity-Focused Program Evaluation in Global Health: Theory and Practice. (4) Lecture, three hours; discussion, one hour (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 the challenges of global health problems and how interventions play out through range of policy and programmatic approaches. P/NP or letter grading.

Upper-Division Courses
100. Global Health and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary examination of key issues in area of global health, with focus on developing world. Provides basis for understanding current debates that frame global health problems and actions in and across nations with strikingly different political-economic contexts. Discussion of how local and international communities attempt to address the 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 the world. Hands-on experiential courses offered for students participating in UCLA Travel Study Program. Field trips included to gain first-hand experience. May be repeated with topic and/or location change. Offered in summer only. P/NP or letter grading.

140. Equity-Focused Program Evaluation in Global Health: Theory and Practice. (4) Lecture, three hours; discussion, one hour. Requisite: course 100. Interdisciplinary approach to provide solid understanding of equity-focused evaluation theories and practices. Dis-cussions are guided by principles of equity and human rights-based approach to global health. Focus on evaluation of policies, programs, and equitable delivery of health services for most vulnerable and marginal-ized populations. Case studies to learn about eq-uity-focused research and evaluation concepts and methodology. Case study topics include impact of COVID-19 pandemic and response to it in addition to our students. For instance, COVID-19 has had greater impact on African American, Latin American, and indigenious communities than on white populations, and
Global Jazz Studies / 515

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 playing in small combos and larger ensembles; (2) musician-ship 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.

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)
Steven J. Loza, PhD
Arturo O’Farrill, MM
Shana L. Redmond, PhD

Professors Emeriti
Kenneth E. Burrell, BA
James W. Newton, BM

Lecturers
Justo Almario, BA
Duane C. Benjamin
Clayton Cameron, BM
Alison S. Deane, MM
Jésus A. Guzmán
Charles A. Harrison, MM
Tamir Hendelman, BM
T. Jacques Lesure
Wolf Marshall, BA
Hitomi M. Oba, MA
Daniel A. Rosenboom, DMA
Otmaro Ruiz, MFA
Luciana Souza, MM
Arturo J. Stable, MM

Adjunct Professors
Mark F. Turner, BM
Michele A. Weir, MA

Adjunct Associate Professors
Roberto Miranda, MM
Ruth Price

Entry to the Major

Admission
Applicants are reviewed individually, based on a questionnaire, grade-point average, test scores, a personal statement of purpose, and an on-campus audition. Applicants who are unable to travel to UCLA have the option of submitting a video audition in place of the on-campus audition.

Transfer Students
Transfer applicants to the Global Jazz Studies major with 90 or more units must complete 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 71I) 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.

Requirements

Preparation for the Major
Required: Ethnomusicology 20B or 20C (5 units), 4 units from 91E and/or 91P, 4 units from 68A through 68O and/or 91A through 91Z (except 91E and 91P); Global Jazz Studies M12A, M12B (10 units), 12 units from 71A through 71I (students must enroll in a studio each quarter); and Music M6A, M6B, M6C (6 units).

The Major
Required: 72 units from the areas below.

Performance (24 units)—12 units of studio coursework from Global Jazz Studies 171A through 171I, 4 units of small jazz combo (Global Jazz Studies 175), 8 units of large jazz ensemble (Global Jazz Studies 176A through 176D).
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 sub-ject 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

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music 3, M6A, M6B, M6C). Examination results may require enrollment in Music 3 as a requisite to course M6A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination. Each course must be completed with a grade of C or better.

The Major

Each course must be taken for a letter grade and be completed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better. No more than eight units from upper-division tutorials (195-199) may be applied toward the degree.

Global Jazz Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M25. Global Pop. (5) (Same as Ethnomusicology M25.) Lecture, four hours; discussion, one hour. Development of world music or world beat, including its meaning and importance to contemporary culture as well as its history and impact. P/NP or letter grading.

M35. Blues, Society, and American Culture. (5) (Same as Ethnomusicology M35.) Lecture, four hours; discussion, one hour. Sociocultural history and survey of blues music tradition from its roots in West Africa to its emergence in African American oral culture, with emphasis on philosophical underpinnings and social and political impact of blues and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

M50A-M50B. Jazz in American Culture. (5-5) (Same as Ethnomusicology M50A-M50B.) Lecture, four hours; discussion, one hour. Course M50A is not requisite to M50B. Survey of development of jazz in American culture. Discussion of different 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 years through modern jazz. Important historical social issues (segregation, Depression, World War II, Civil Rights Movement) that intersect with history of U.S. and jazz music. P/NP or letter grading. M50A. Late 19th Century through 1940s; M50B. 1940s to Present.

66. Global Jazz Studies Composition Studio. (2) Studio, one hour per week with an instructor; outside study, five hours. Limited to Global Jazz Studies majors. One-on-one composition lessons with assignments and compositions tailored to student progress and level of achievement. Lessons address various issues in harmonic, melodic, and rhythmic construction, orchestration, analyses of global jazz masterworks, form, texture, style, notation, ornamentation, improvisation, and performance feasibility. May be repeated for credit. P/NP or letter grading.

71A-71I. Instruction in Jazz Performance. (2) (Formerly numbered Ethnomusicology 71A-71F) Studio, one hour of individual instruction. Limited to Global Jazz Studies majors. Knowledge of jazz repertoire, concepts, and techniques gained through private lessons on specific instruments and voice. Students meet weekly with instructor to demonstrate their performance skills and receive assessment of their progress in learning material. May be repeated for maximum of 12 units. Letter grading. 71A. Guitar; 71B. Percussion; 71C. Trumpet; 71D. Trombone; 71E. Trumpet; 71F. Voice.

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. Cross-Cultural Perspectives in Jazz. (4) (Formerly numbered Ethnomusicology 121.) Lecture, four hours. Exploration of assimilation and retention of jazz from U.S. in various countries, with particular emphasis on cultural and social issues that form basis for new jazz-ethnic music blends. Letter grading.

M103. Creating Musical Community. (4) (Same as Ethnomusicology M103, Music M103, and Musicology M103.) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and student make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notions of community and form that basis for musical notation. Drawing from American music folklore 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 as art form. P/NP or letter grading. M109A-M110B. African American Musical Heritage. (5-5) (Formerly numbered M12A-M12B.) (Same as African American Studies M116A-M116B and Ethnomusicology M110A-M110B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M110A. Sociocultural history and survey of African American music covering Africa and its impact on America; music theory 17th through 19th centuries; minstrelsy; knowledge of 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. M110B. 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. M111. Ellingtonia. (4) (Same as African American Studies M111 and Ethnomusicology M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington’s music, known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Cootie Williams, Mercer Ellington, P. Innis, and others.

M119. Cultural History of Rap. (5) (Same as African American Studies M117 and Ethnomusicology M119.) Lecture, four hours; discussion, one hour. Introduction to the development and history of rap music 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.

122A-122B-122C. 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. 122A. Early Jazz to Swing Era; 122B. Bebop to Avant-garde; 122C. Jazz since Swing Era.

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, techniques, and symbiotic relationship between recording industry and recording studio, one hour of individual instruction. Limited to Global Jazz Studies majors. Faculty and students make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notions of community and form that basis for musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

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. Letter grading.

M128. Exploration in Rhythms. (2) (Same as Ethnomusicology M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or harmonic notation. Investigation and exploration of musical time and rhythm in 20th- and 21st-century classical, jazz, world, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hemiola, polyrhythms, etc.. Analysis of different writing techniques and approaches that distinguish different sub-styles of jazz from one another. Assignments focus on writing for medium and large ensembles, with final project of arrangement to be read by UCLA Jazz Orchestra. P/NP or letter grading.

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, 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. Requisites: faculty permission and approval of music school of music majors. Students meet weekly with instructor to demonstrate their personal efforts in improvisations. 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 accomplishment in composition. Evaluation of important 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 and techniques in ways 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.

171A-171I. Instruction in Advanced Jazz Performance. (2 each) (Formerly numbered Ethnomusicology 171AF-171IF.) Studio, one hour of individual instruction, to be arranged. Limited to junior/senior Global Jazz Studies majors. Study of repertoire and techniques for specific instruments and voice. Grades are assigned by studio instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. Letter grading. 171A. Guitar; 171B. Percussion; 171C. Piano; 171D. Saxophone; 171E. String Bass; 171F. Trombone; 171G. Trumpet; 171H. Voice.

175. Jazz Combo. (2) (Formerly numbered Ethnomusicology 177.) Activity, two hours; laboratory, four hours. Preparation: audition. Exploration of composition and improvisation more intensively 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 161H.) 176B. Charles Mingus Ensemble. (Formerly numbered Ethnomusicology 161Z.) 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 Ensemble.

186A. Capstone Seminar. (3) Seminar, two hours; outside study, seven hours. Limited to senior Global Jazz Studies majors. With approval from faculty advisers, students develop and prepare one-hour recital consisting of a major and reflect on process. In lieu of recital, students may develop research-based project, which includes comparable public event (e.g., lecture-demonstration or lecture-recital). Letter grading.

186B. Capstone. (1) Seminar, two hours; outside study, seven hours. Limited to senior Global Jazz Studies majors. With approval from faculty advisers, students perform (or have compositions performed in one-hour recital) that engage global dimensions of major, contributing substantial program notes. Students who have developed alternative capstone projects present work in public event comparable to recital (e.g., lecture-demonstration or lecture-recital). Letter grading.

188. Special Topics in Global Jazz Studies. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Selected topics in global jazz studies. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

189. Community or Corporate Internships in Ethnomusicology. (4) Tutorial, six to 12 hours. Limited to junior/senior Global Jazz Studies majors with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

196. Jazz Teaching Practicum. (4) Seminar, two hours; fieldwork, four hours; outside study, seven hours. Limited to junior/senior Global Jazz Studies majors. Integration of academic work and hands-on training in outreach program. Participation in theoretical discussions of jazz education and application of these theories in elementary and secondary music and social studies classrooms. P/NP or letter grading.

197. Individual Studies in Global Jazz Studies. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to senior Global Jazz Studies majors. Individual intensive study 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 in Global Jazz Studies. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Global Jazz Studies majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

Overview
The Global Studies Interdepartmental Program provides undergraduate students with a rigorous interdisciplinary major leading to a Bachelor of Arts (BA) degree, as well as an undergraduate minor. The curriculum features three thematic pillars that capture the principal dimensions of the unprecedented depth and breadth of interconnections among nation-states, ethnic and religious groups, and individuals. Culture and society courses concentrate on the tensions between local ways of life with deep historical, linguistic, ethnic, and religious roots; and today's pressures for transnational cultures and multiple identities, fueled by the communication of ideas and the movement of people around the world. Governance and conflict courses focus on challenges to the nation-state from forms of governance above (regional and global forms of governance) and below (autonomy and secessionist movements); and from security threats beyond interstate warfare (ethnic conflict, terrorism, civil wars). Markets and resources courses address the interactions among global, regional, national, and subnational economic processes over resources and market dynamics; their effects on different societies with respect to economic growth, poverty, inequality, the environment; and the interactions among market forces, political institutions, and public policy.

The curriculum draws on insights from disciplines across the humanities and social sciences to give students the theoretical and methodological skills and knowledge base necessary to understand this complex and rapidly changing world.

Undergraduate Major
Global Studies BA
Capstone Major
The Global Studies major is a designated capstone major. As students progress through the major, they move from a set of broad themes, theories, and perspectives to a more specialized focus about which they develop a specific research expertise and write a thesis. In completing 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

Entry to the Major

Admission
Admission to the Global Studies major is by application only and is highly competitive, with only a limited number of students admitted each year. To be eligible to apply, UCLA students must have completed all nonlanguage preparation for the major courses and one modern foreign language equivalent to level 3 by the end of the term in which they are applying. Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and the UC grade-point average for all preparation courses must be a minimum of 3.25. In addition, students must have earned a grade of B or better in Global Studies 1.

The application period is once per year, and students must apply no later than the end of fall quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Pre-major
Incoming first-year and transfer students may be admitted as Global Studies pre-majors on acceptance to UCLA. Pre-major students must apply for the major at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the Global Studies pre-major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one modern world history course, one major world region languages and cultures course, one international politics course, one macroeconomics or microeconomics course, one statistics course, and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Global Studies 1 with a grade of B or better; one methods course selected from Political Science 6, 6R, 30, Statistics 10, 12, or 13; demonstrated proficiency equivalent to level 6 at UCLA in one modern foreign language; and five additional courses as follows: (1) one culture and society course selected from Anthropology 3, 4, Comparative Literature 1C or 2CW, 1D or 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 market and resource 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.

The Major
Required: Global Studies 102, 103, 104, and six elective courses, two from each of the following categories:

- Culture and Society—Anthropology 146, M148, Asian American Studies M130C, 170, M172A, 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, Global Studies 125, 140, Political Science M184A, Religion M107, Southeast Asian 157, Sociology and Genetics 134, Sociology 151, 152, 154, M162, 191F.


Required Summer Global Learning Institute: After successful completion of two courses from Global Studies 102, 103, 104, students are expected to attend a summer Global Learning Institute at one of several locations around the world in which they enroll in Global Studies 110A and 110B.

Required Capstone: During their senior year, students must also take two capstone courses—Global Studies 191 and research/field experience practicum: International and Area Studies 195CE or Global Studies 199.

Honors Program
In addition to completing all courses required for the major, students must take courses 199A and 199B, in which they research and write an honors thesis.

Policies
Preparation for the Major
Courses must be completed with a grade-point average of 3.25 or better.

Honors Program
 Majors who have completed Global Studies 102, 103, 104, 191, and who have a 3.5 grade-point average (GPA) in all courses offered for the major are eligible to formally apply for the honors program.

To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 199A and 199B) and an overall GPA of 3.25. Highest honors may be granted at the discretion of the faculty sponsor 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 intersections 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 M25, French 14, 14W, Gender Studies 10, Geography 3, 6, History 2B, 8A, International and Area Studies 31, Italian 42A, 42B, Middle Eastern Studies M50CW, Russian 90B, 90BW, Spanish 42, 44, World Arts and Cultures 20, or 33, (b) governance and conflict—History 10B, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (c) markets and resources—Economics 1, 2, Environment 12, Clusters M1A, or Sociology 51.

The Minor

Required Courses (22 to 25 units): Five courses from the following categories with at least two

After completing at least two courses from Global Studies 102, 103, 104, Global Studies minors are highly encouraged to participate in a summer Global Learning Institute at one of several locations around the world. The courses offered, Global Studies 110A and 110B, may be applied toward any two of the elective categories (culture and society, governance and conflict, and markets).

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Global Studies

Lower-Division Courses

1. Introduction to Globalization. (5) Lecture, three hours; discussion, one hour. Introduces to concept and history of globalization, and to political, economic, social, and environmental dimensions of global integration today. Topics include finance and trade, colonialism, Industrial Revolution, urbanization, immigration, and climate change, among others. P/NP or letter grading.

10. International Diplomacy and Foreign Affairs. (2) Lecture, 15 hours; discussion, 15 hours. Limited to high school students participating in Model United Nations (UN) Summer Institute. One-week intensive summer course, including lectures in international relations and outside study. Development of position papers in simulation of United Nations and final presentation in respective UN committees. Particular emphasis on public speaking and cooperative debate. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students enrolled in lower-division course lecture. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as 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 hour per week unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course), individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. 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 migration. P/NP or letter grading.

103. Globalization: Governance and Conflict. (5) Lecture, three hours; discussion, one hour. Requisite: course 1. Exploration of globalization of governance and its effect on outbreak, 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.

104. Globalization: Culture and Society. (5) Formerly numbered 100B.) Lecture, three hours; discussion, one hour. Requisite: course 1. Investigation of circulation of peoples, goods, and media to examine interactions of globalization and formation of global cultures through practices and processes of globalization. Letter grading.

110A. Globalization in Context. (5) Lecture, six hours. Requisite: course 100B. Corequisites: course 110B. Culture, economy, history, and politics of different locations around the world and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.

110B. Globalization in Context Research Seminar. (5) Seminar, six hours. Requisite: course 100B. Corequisite: course 110B. Individual research projects on different aspects of globalization processes in locations around the world. Offered in summer only. P/NP or letter grading.

120. Introduction to International Business. (4) Lecture, three hours; discussion, one hour (when scheduled). Over last five decades, world has increasingly become globalized, presenting many new opportunities for businesses and entrepreneurs. However, recent world events have demonstrated volatility nature of globalization. Course will also model for firms doing business in global setting. Students gain understanding of dynamic environment of international business, and how firms manage navigate complex world, including risks. May be repeated for credit. Letter grading.

125. Los Angeles as Global City: Exporter and Importer of Global Culture. (4) Lecture, three hours; discussion, one hour. Study of phenomenon of globalization through prominent case of Los Angeles. Focus on how city produces global culture, including filmed entertainment and cultural imports, 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 influences nature of its cultural exports. To what extent is cultural capital dependent 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 toward 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; discussion, one hour (when scheduled). Requisite: course 1. Reconsideration of history and geographies of global capitalism. Displacing industrial revolution from Britain out to colonial world, slavery and trade, and attempted genocide of indigenous peoples in Americas, study of new map of global capitalism and new histories of globalization. Study covers capitalism; embodiment and gender; capitalism and environmental crisis; and new issues in digital capitalism, gig economy, and social media. Letter grading.

160. Selected Topics in Global Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more issues related to global studies. May be repeated for credit with topic change. P/NP or letter grading.

188A-188B. Special Studies in Global Studies. (4–8) Seminar, three hours. Program-sponsored 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 major requirements 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: Global Studies—Senior Seminar. (4) Seminar, three hours. Examination of topics such as topixA, 110B. Limited to senior Global Studies majors. Organized on topics basis 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 practicum for advanced students to serve as undergraduate course assistants in global studies courses. Students assist in preparation and presentation of materials and development of innovative learning environments with qualitied learners. May not be applied toward major requirements. May be repeated 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.

HEAD AND NECK SURGERY

David Geffen School of Medicine
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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 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 superb 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.

Head and Neck Surgery faculty information is available from the department.

HEALTH POLICY AND MANAGEMENT

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Lori S. Pelliccioni, JD, PhD

Overview
The field of health policy and management examines the organization and financing of various health sector and wider social system activities to prevent and treat disease. This includes programs in both the public and private sectors at all levels—local, state, and federal. Faculty members come from such diverse fields as economics, management, law, statistics, operations research, planning, medicine, history, sociology, and political science. These diverse disciplines are harmonized by their devotion to solving problems—through quantitative, qualitative, and mixed method analyses—in the financing and delivery of health policy and management, with a focus on populations rather than individual patients.

Graduate Study
The Department of Health Policy and Management offers both practice-oriented and research-oriented graduate programs. The primary professional degree, the Master of Public Health (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 the Health Policy and Management Department on the Graduate Division website.

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

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 service research across a wide breadth of topics, examining issues and finding solutions to critical health care problems locally, nationally, and globally. Graduates pursue careers in universities, as well as in public and private agencies involved in health services research and health policy analysis.

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

400. Field Studies. (4) Fieldwork, to be arranged. Cultivation of fieldwork process that takes approximately one year from internship search process, through actual field placement, to this integrative course. Deliberate consideration and reflection on relationship between summer practicum and principles and competencies of health-care management and policy learned during academic year. Students complete professional management or policy-related consulting report based on organizational problem or health policy issue on which students focused during summer, S/U or letter grading.


402. Management and Organizational Behavior in Health Systems. (4) Lecture, three hours; discussion, one hour. Application of contemporary management and organization behavioral theory to systems that provide personal health-care services. Environmental characteristics, decision-making, structure and culture, and processes of health services organizations. Letter grading.

403. Health-Care Information Systems and Technology. (4) Lecture, three hours; discussion, one hour. Provides strong foundation in health information technology (HIT) for those working in health care, with emphasis on development of knowledge and skill to plan, manage, and implement HIT systems in health-care delivery organizations with clinical and business partners and evolving HIT spaces. Background and evolution of HIT; how it is planned, implemented, and managed; and how it can be productively used by health-care delivery organizations, external research organizations, regulatory organizations, providers, and patients/consumers. Fundamentals of technology, electronic medical records (EMR), electronic health records (EHR), personal health records (PHR), meaningful use, interoperability, and health information exchange (HIE). Letter grading.

404. Health-Care Strategy. (4) Lecture, three hours; discussion, one hour. Conceptual, analytical, and technical aspects of environmental assessment and strategy formulation in health delivery organizations, biopharma, and medical technology. Special attention to structure and dynamics of competitive markets, corporate-level strategic planning and marketing, managerial ethics and values, organizational creativity/innovation. Letter grading.

405. Leadership and Ethics. (4) Lecture, three hours; discussion, one hour. Preparation: completion of immersion course 596. Examination of leaders and leadership in health care and other organizations to provide broad introduction to literature on skills, behaviors, and characteristics of organizational leaders. Relationship and importance of vision, values, change, strategy, and communication. Identification of charac-
596. Directed Individual Study or Research. (1 to 4) Tutorial, to be arranged with MHA program faculty member. Limited to graduate students. Professional development seminars and workshops. Only 1 unit may be applied toward MHA minimum total course requirement. Letter grading.

597. Preparation for Master’s Comprehensive Capstone Project. (1 to 4) Tutorial, to be arranged. Limited to graduate students. Reading and preparation for master’s comprehensive capstone project. Mandatory and supplemental topics lists approved by student advisory committee. Only 1 unit may be applied toward MHA minimum total course requirement. May be repeated for credit. S/U and 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 health care systems, health care policy, and issues and forces shaping its future. P/NP or letter grading.


C121. Tobacco: Policy 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.

140. Foundations of Maternal and Child Health. (4) Seminar, four hours. Introduction to field of maternal and child health, with focus on major issues affecting health and well-being of children and families over life course. Emphasis on health, prevention, and supportive programs at different stages of child’s life; application of life course health development framework to understand health disparities and implications for policy and practice. Letter grading.

M168. Healthcare for American Indians. (4) (Same as American Indian Studies CM168.) Lecture, two hours; discussion, one hour. Emphasis on traditional beliefs, health practices, and healthcare systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Discussion of health care systems that have affected American Indian people and definition of contemporary health issues and measures taken to raise health status of American Indian people. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced 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 corequisite mentors. Offered to juniors/seniors 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 contract in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Health Services. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

200A–200B. Health Systems Organization and Financing. (4–4) Lecture, three hours; discussion, one hour. Limited to graduate health services students. In-depth analysis of health services systems in U.S., using relevant theories, concepts, and models. S/U or letter grading.

M201. Topics in Theoretical Epidemiology. (2) (Same as Epidemiology M203.) Lecture, two hours. Selected topics from current research areas in epideimiologic 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.

M203A. Microeconomic Analysis for Public Health and Policy. (4) (Formerly numbered 203A.) (Same as Public Policy M201A.) Lecture, four hours. Requisite: course 203B or course 203C. Basic concepts of microeconomics, with emphasis in their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

M203B. Microeconomic Analysis for Public Health and Policy. (4) (Same as Public Policy M204A.) Lecture, four hours. Requisites: course 203A and course 3A, 3B, or 31A. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

M204A–M204B–M204C. Seminars: Pharmaceutical Economics and Policy. (1–1–2) (Same as Economics M204L–M204M–M204N.) Seminar, three hours every other week. Requisite: course M236. Limited to graduate public health and economics students. Various topics in economics of pharmaceutical industry, including rates of innovation, drug regulation, and economic impact of pharmaceuticals. (M204A, M204B, and M204C grading.)

M205. Pharmaceutical Policy. (4) (Formerly numbered 205.) (Same as Public Policy M265.) Lecture, three hours. Policy issues pertaining to pharmaceutical sector. Topics include: pharmaceutical expenditures on drugs, price setting in industry, health insurance coverage for pharmaceuticals, and research and development process. 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 applications, designed to provide more nuanced view of health economics than does course M236. Provides more training for master’s level policy settings and development of critical thinking and argumentation. Letter grading.

242. Determinants of Health. (4) Same as Community Health Sciences M232.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.

243. Population Health Approach to Autism Spectrum Disorder. (4) Lecture, three hours. Overview of impact that Autism Spectrum Disorder has on individuals, families, and communities, including access to services, ongoing therapies, and adult vocational and residential placement. Covers opportunities for research and national policy. S/U or letter grading.

244. Telehealth and Technology. (4) Lecture, four hours. Preparation: working knowledge of Excel, PowerPoint, Internet, and smartphone devices. Connects multiple aspects of telehealth 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 efficient health-care business operations. Students learn how to implement Telehealth interventions, understand its challenges, and optimize data visualization for decision making. S/U or letter grading.

246. Primary Health Care. (4) Same as Community Health Sciences M248.) Lecture, four hours, strongly recommended. Public Health 200A, 200B, Recommended requisite: course 240 or Community Health Sciences 200. Primary Health care (PHC) is considered to be foundation of all health systems and services and, it provides 80 percent of population’s health problems. Overview of organization, structure, and function of primary health care with emphasis on low- and middle-income country settings. Study of history and origins of PHC, roles and functions of PHC in health systems, different organizational and managerial approaches to organizing and delivering health care within PHC framework, and tools for tracking how well PHC programs and services are functioning. Review and critical analysis of evidence-based on PHC effectiveness and impact and present detailed case studies of PHC programs in diverse settings. 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. Seminars may be organized in special topics. Advanced study and analysis of issues in health 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.

249Q. Editorial Board Apprenticeship. (2) Same as Psychiatry M210.) Seminar, two hours. Designed for postdoctoral fellows and advanced PhD students. Participation in the process for coordinating and editing the Journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editor on suitability for full review. S/U or letter grading.

249S. Special Topics in Health Service: Introduction to Implementation Science. (4) Seminar, four hours. Preparation: good grasp of social science research methods. Designed to provide 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. Project Management for Health-Care Organizations. (4) Lecture, four hours. Exploration of opportunities for using project management, change management, and process improvement techniques to enhance execution of project and improvement initiatives within health-care organizations. Letter grading.

252. Medicare Reform. (4) Same as Public Policy M267.) 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 features of program to accommodate changes created by retire- ment of baby-boom generation. Letter grading.

253. Transforming 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 major health-care initiatives to transform 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 familiarity of key drivers of transformation, S/U or letter grading.

255. Obesity, Physical Activity, and Nutrition Seminar. (4) Same as Community Health Sciences M234.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction to graduate level to epidemiology, physiology, and current state of preventive and therapeutic interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

2559. Smoking, Drinking, Smoking, and Driving: Understanding Public Policy in U.S. (Same as Community Health Sciences M259.) Lecture, two hours; discussion, two hours. Recommended requisite: course 256. Overview of essential theories regarding development, implementation, and impact of public health policies in U.S. with emphasis on state and local governments. Students develop skills in public health policy research (laws, regulations, statutes, ordinances) and engage in critically analyzing evidence for different approaches currently used to address some of main causes of death and disability in U.S., including tobacco, alcohol, firearms, food and nutrition. Readings, case studies, exploration of public use data, group discussions, and directed individual research. Students engage in discussion and debate regarding contemporary challenges and emerging trends. S/U or letter grading.


265. Challenges in Clinical Health Services Research. (4) Seminar, four hours. Preparation: courses 200A, 200B. Designed to prepare students for challenges involved in conducting health services research on clinical topics and populations. Topics include formulating appropriate questions, identifying sources, mechanism of conducting field studies, identifying funding sources, writing grants, and publishing findings. S/U or letter grading.

266A-266B. Community-Based Participatory Health Research: Methods and Applications. (4–4) Lecture, one hour; discussion, one hour; fieldwork, two hours. Limited to graduate students. Mean of field experiences with introduction to critical issues in conducting research in community settings. Review of assignments, interventions, and evaluation designs for community-based participatory health research and key issues in partnering with communities. Letter grading.

269. Healthcare Policy and Finance. (4) (Same as Public Policy M269.) Seminar, three hours; outside study, one hour. Designed for master’s and doctoral students. Examination of costs, healthcare financing, health insurance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection, and role of competitive healthcare markets. Letter grading.

274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) (Same as Psychology M274.) Lecture, two hours; discussion, one hour. Same as Psychology M274. Same as Social Work M274.) Seminar, three hours; outside study, one hour. Same as Psychology M274. Same as Social Work M274.) Seminar, three hours; outside study, one hour. This 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.

280. Health Reform: Policy, Research, and Implementation Issues. (4) Seminar, three hours. Requisites: courses 200A, 200B. Limited to second-year MPH and doctoral students. Analysis of components of major federal healthcare reform legislative initiatives 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. Conducting of policy analyses of selected components through completion of written assignments. Examination of roles of federal and state government and local government in health-care policy-making. Focus on identification of key components. Identification of significant implementation and administrative challenges at federal and state levels and development of feasible strategies for addressing these challenges. Letter grading.

281. Policy Making amid Health, Economic, and Social Crises: Pandemics and Beyond. (4) Seminar, four hours. Preparation: one year of graduate coursework. In past two decades there have been four respiratory pandemics. While COVID-19 led to most devastating health and economic consequences, threat it presents is not unique. Climate change and environmental degradation, increased reliance on animal habitats are together increasing rate of emerging disease outbreaks. In nearly every case, pandemics have highlighted and been worsened by underlying social, cultural, and economic stresses. Focus on what can be done to address underlying inequalities, as well as what can be done to improve response to simultaneous health, economic, and social crises. Students learn comparative policy methods, analyze area of particular interest, and study what approaches states and countries have taken in the past and impact of these approaches. S/U or letter grading.

284. Social Policy and Health: Case for Gender. (4) Lecture, four hours. Preparation: four hours of core MPP 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 relations among gender inequality, restrictive gender norms, and health. Examination of evidence pulled together by World Health Organization (WHO) Committee on the World Health Report 2001 on how gender inequality and restrictive gender norms impact health across sexes and genders. Examination of evidence on extent of gender inequality in other social determinants of health, such as education, health, work, poverty. Focus on policies to improve health. Discussion of examples of policy and programmatic approaches to inequalities in education, work, family, and other spheres. Students have opportunity to dive deeper into area of choice. S/U or letter grading.
286. American Political Institutions and Health Policy. (4) Lecture, four hours. Enforced requisites: courses 200A and 200B, or Community Health Sciences 210. Examination of political process through analysis of case studies such as environmental protection, pandemic preparedness and response, preventive health services for women, and racial and income inequality and health. Examination of framework for assessing evidence-based policy making and effects of political structure and current political divisions, including efforts such as to repeal and dismantle Affordable Care Act. Letter grading.

288. Role and Impact of Technology on Health Services. (4) Lecture, four hours. Examination of role and impact of technology on health services in the U.S. from 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. Limited to graduate students. Exploration of what constitutes and explains disparity in healthcare. Emphasis is placed on the 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 care. Examination of sociological models that explain disparities in healthcare and evaluation and expansion on these models. Letter grading.

290. Evolving Paradigms of Prevention: Interventions in Early Childhood. (4) Same as Community Health Sciences M237.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood interventions as means to improve health and developmental outcomes. Concepts of developmental vulnerability, approaches to assessment, models of service delivery, evaluation and cost-benefit issues, funding, and other policy issues. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticehip under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


401. Public Health Informatics. (4) Lecture, three hours. Preparation: general familiarity and under-standing of basic information technologies. Recommended requisite: course 251. Introduction to field of public health informatics and examination of impact of information technology on public health. Entire process, from systems conceptualization and design to project planning and development to system implementation and use. Letter grading.


M411. Issues in Cancer Prevention and Control. (4) Seminar, three hours; discussion, one hour. Enforced requisites: courses 200A and 200B, or Community Health Sciences 210. Examination of political process through analysis of case studies such as environmental protection, pandemic preparedness and response, preventive health services for women, and racial and income inequality and health. Examination of framework for assessing evidence-based policy making and effects of political structure and current political divisions, including efforts such as to repeal and dismantle Affordable Care Act. Letter grading.

415. Organizational Analysis. (4) Seminar, four hours. Introduction to important questions and perspectives relevant to understanding organizational behavior and change in healthcare and public health environments. Active paradigms in organizational theory, particularly perspectives informed by system dynamics and delivery system change. Examination of empirical research to clarify how important organizational constructs have been operationalized and to highlight methodology-related challenges and solutions in healthcare and public health. Letter grading.

M420. Children with Special Healthcare Needs: Systems Perspective. (4) Same as Community Health Sciences M420 and Social Welfare M290L.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

M422. Practices of Evaluation in Health Services: Theory and Methodology. (4) Same as Sociology M422.) Lecture, four hours. Designed for departmental MS and PhD students. Familiarity with current theoretical concepts in evaluation to gain skills in integrating implementation and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate to variety of settings both within and outside health care and consideration of advantages and disadvantages of potential design. Examination of shift in field of evaluation over past decade from principal focus on program efficacy (i.e., internal validity) to more balanced approach considering efficacy in context of feasibility, reach, cost, and sustainability (i.e., external validity) and evaluation designs that have emerged (e.g., pragmatic and adaptive trials). 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 implementation and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate to variety of settings both within and outside health care and consideration of advantages and disadvantages of potential design. Examination of shift in field of evaluation over past decade from principal focus on program efficacy (i.e., internal validity) to more balanced approach considering efficacy in context of feasibility, reach, cost, and sustainability (i.e., external validity) and evaluation designs 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 community-based organizations (CBOs) and role of leadership in decision-making process involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies that are or should be employed by organizations effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs in Los Angeles meet with students, comment on their practicum experiences, and share concepts demonstrated by those CBOs. S/U or letter grading.


431. Organizational Behavior and Human Resources in Healthcare Organizations. (4) Lecture, four hours. Managerial skills and behaviors applied to components of organizations at several levels: individual, interpersonal, group, intergroup, and system. Core human resources skills required by managers. Unique features of health services organizations stressed as applications are presented. Letter grading.


M434. Building Advocacy Skills: Reproductive Health Focus. (4) Same as Community Health Sciences M434.) Seminar, three hours. Recommended requisite: one prior health policy course such as Community Health Sciences 247 or Health Policy 235. Designed for School of Public Health graduate and doctoral students. Skills-building course to develop competency in assessing, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislation, public health advocacy initiatives and to policymaking process, including policy analysis and development of resources necessary for legislative advocacy. Identification of advocates, advocacy goals and objectives, development of advocacy plan, coalition building, organizational capacity building, media relations, and message development for various audiences. Students learn about range of former and current reproductive health advocacy campaigns. Letter grading.


438. Issues and Problems of Local Health Administration. (4) Lecture, three hours. Preparation: one health services course. Requisites: course 100, Epide- miology 100. Overview of administrative issues currently facing departments, including providing public health programs during fiscal constraint, quality improvement, interagency relationships and partnerships, and political and public interactions. Letter grading.

439. Data Software for Public Health Professionals. (4) Lecture, two hours; activity, one hour. Development of software skills around data analytics (e.g., Excel), including use of formulas and functions, formatting and manipulating datasets, developing visualizations including charts and tables, using lookup and data manipulation software skills around data analytics (e.g., Excel), and partnerships, and political and public interactions.

440A. Healthcare Information Systems and Technology. (4) Lecture, four hours. Preparation: completion of summer internship. Provides strong foundation in health information technology (HIT) for those working in healthcare, with emphasis on development of knowledge and skill to plan, manage, and implement HIT systems in healthcare delivery organizations with clinical and business partners and evolving HIT spaces. Examination of HIT evolution 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 exchange (HIE). Letter grading.

440B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Requisite: course 440A. Health and administrative record keeping, using clinical records, principles of planning for routine and special studies. Individual investigation in methods of obtaining and processing data to meet needs of programs in institution and agency. Introduction to principles of medical auditing; analysis of medical and health services. S/U or letter grading.

441. Data Analytics: Identifying, Collecting, and Analyzing Data in Health Care. (4) Lecture, three hours. Requisite: course 439 or proof of waiver examination. Exploration of data sources and uses in health care, e.g., electronic medical records, social media, wireless biosensors, system and facility data. Review of handson techniques, including data management, development of indexes and metrics, choosing and implementing analysis methods and visualizations. Discussion of role of data collection and processing within health care system. Letter grading.


446. Health-Care Operations Management. (4) Lecture, four hours. Health-care managers are charged with reducing costs and improving financial outcomes in their organizations while simultaneously improving patient service and satisfaction. Focus on operations improvement and how health-care organizations can get things done. Review of integrated, systematic approach and wide variety of operations improvement tools. Designed to further prepare students for entry into managerial positions in health-care organizations by making them aware of importance of operations techniques and strategies at all career levels, and providing them with sufficient knowledge of health-care operations so they can provide departmental input to organization’s leadership. S/U or letter grading.

449A-M449B. Child Health, Programs, and Policies. (4-4) (Same as Community Health Sciences M436A-M436B.) Lecture, four hours. Course M449A is requisites to M449B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting at-risk populations. Letter grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate department. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 6 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

566. 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 or letter grading.

595. 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.

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.

HISTORY

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Eric R. Avila, PhD
Peter Baldwin, PhD
Stephen A. Bell, PhD
Aomar Boun, PhD (Maurice Amado Professor of Sephardic Studies)
Joel T. Braslow, MD, PhD, in Residence

Soraya de Chadarevian, PhD
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James L. Gelvin, PhD
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Brenda Stevenson, PhD (Nickoll Family Endowed Professor of History)
Sanjay Subrahmanym, PhD (Irvng and Jean Stone Professor)
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Stefania Tutino, PhD (Peter Reill Term Professor of European History–1450 to Modern)
Richard von Glahn, PhD
R. Bin Wong, PhD
Gregory D. Woolf, PhD (Ronald J. Mellor Professor of Ancient History)
David K. Yoo, PhD

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Robin L.H. Derby, PhD
Ivan T. Berend, PhD
Kathryn Bernhardt, PhD
Ruth H. Bloch, PhD
Robert P. Brenner, PhD
Giorgio Buccellati, PhD
Claus-Peter Claesen, PhD
Robert Dallek, PhD
Ellen C. DuBois, PhD
John Duncan, PhD
Christopher Euhret, PhD
Benjamin A. Elman, PhD
Robert G. Frank, Jr., PhD
Stephen P. Frank, PhD
Saul P. Friedlander, PhD
Robin D.G. Kelley, PhD
History / 527

Undergraduate Major

History BA

Capstone Major

The History major is a designated capstone major. Undergraduate students take a capstone seminar in which they demonstrate mastery of a specialized area of history and a critical understanding of current scholarly concerns, literature, and debate. They design and complete a research project using those primary sources and literature.

Learning Outcomes

The History major has the following learning outcomes:

- Demonstrated appropriate mastery of a specialized area of history
- Demonstrated critical understanding of current scholarly concerns, literature, and debates
- Identification and analysis of primary sources
- Design and execution of a research project, drawing on primary sources and appropriate scholarly literature
- Demonstrated ability to organize and present a brief oral presentation about research

Entry to the Major

Pre-major

While students are completing the lower-division preparation for the major courses, they may be classified as History pre-majors.

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 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.

Requirements

Preparation for the Major

Required: Six lower-division history courses as follows: two history survey courses selected from History 1A, 1B, 1C, 2B, 2C, 3A, 3B, 3C, 3D, M4, 5, 8A, 8B, 8C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, 12A, 12B, 12C, 13A, 13B, 13C, 14, 20, 21, or 22; one course selected from Hist-
tory 94, 96W, or 97A through 97O; three additional lower-division history courses (except History 19, 89, 89HC, 99).

The Major

Required: At least 10 upper-division history courses, including (1) two courses in U.S. history, (2) two courses in non-Western history from the same area (i.e., Latin America, Asia, Near East, Africa), (3) two courses in European history or in history of science, (4) one course from 187A through C187R, and (5) one capstone seminar from the History 191 series.

The requirements for U.S., non-Western, and European history may be fulfilled with either upper- or lower-division courses, but majors are required to take a minimum of 10 upper-division history courses.


Honors Program

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

Each course must be taken for a letter grade.

There is no language requirement for the major; however, students wishing to enter the honors program or planning to do graduate work in history are urged to pursue language study early in their undergraduate careers.

Honors Program

The honors program is designed for History majors who are interested in completing a year-long research project that culminates in an honors thesis. A 3.5 departmental grade-point average is required for admission. To graduate with departmental honors, students must have a cumulative or overall GPA of at least 3.0 in all University-level coursework and at least a 3.5 GPA in all coursework required for the major.

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C. Students must register their intention to undertake an honors thesis with the undergraduate affairs vice chair no later than spring quarter of their junior year.

When students register for honors, they must provide the undergraduate affairs vice chair with a two-paragraph description of their thesis project, which must be approved in writing by the faculty member who agrees to act as their adviser. The undergraduate affairs vice chair must also approve the proposed project in writing.

The faculty adviser is primarily responsible for guiding the thesis work to its completion and assigns grades for the honors courses after the thesis is complete. The honors thesis should be 40 to 60 pages in length and be based on primary source material. Determination of the level of honors awarded (no honors, honors, or highest honors) is made by the undergraduate affairs vice chair, acting in conjunction with the honors committee, at the end of the term in which the thesis is completed.

Undergraduate Minors

History Minor

The History minor introduces students to historical processes and institutions.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Undergraduate office, 6284 Bunche Hall.

The Minor

Required Lower-Division Courses (10 units): Any two lower-division history courses.

Required Upper-Division Courses (20 units): Any five upper-division history courses.

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 under-graduates majoring in fields other than history the opportunity to pursue a rigorous program in the historical dimensions of science, technology, and medicine, and their place in society. Students will learn to think critically and write analytically about these subjects.

Admission

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units and at least one lower-division course in the history of science or medicine for a letter grade, and file a petition with an adviser in the History Department undergraduate counseling offices, 6284 or 6290 Bunche Hall.

The Minor

Students must take seven classes to satisfy the requirements for the minor. The lower-division requirement is designed to give the student a broad understanding (in time and space) of the historical development of science, technology, and medicine. The upper-division requirement allows students to choose from an array of more focused classes.

Required Lower-Division Courses (10 units): Two courses from History 2B, 3A through 3D.


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 seminar with a required research paper.

Policies

History 191 and 199 may be applied only once toward the minor.

Honors collegium courses with significant history of science, technology, and medicine content may be applied toward the upper-division course requirement for the minor.

One upper-division course outside the department may be counted toward the minor, with approval of the history of science field coordinator. The course must address social, historical, and philosophical aspects of science, technology, and medicine.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must maintain an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Graduate Major

History MA, CPhil, PhD

Requirements

Official, specific degree requirements are de-
scribed 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.

History

Lower-Division Courses

1A. Introduction to Western Civilization: Ancient
Civilizations, Prehistory to circa AD 843. (5) Lec-
ture, three hours; discussion, one hour. Survey of di-
verse cultures that shaped foundation of Western civi-
lization to onset of 9th century AD. Investigation of first
civilizations in Near East and Egypt. Analysis of world-
ofs Greeks and Romans. Examination of social and
political systems in which western European societies created new syntheses
throughout history. Greek and Roman cultures and introduction of new cultural forms. P/NP
or letter grading.

1AH. Introduction to Western Civilization: Ancient
Civilizations, Prehistory to circa AD 843 (Honors).
(S) 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; dis-
cussion, one hour. Introduction to history of the West and its con-
nections to rest of world from 843 to 1715. Prior
social, political, cultural, and intellectual changes that affected development of modern world.
Topics covered include economic, political, social, and cultural aspects of feudal system; relationship between
Church and empire; new religious movements (in-
cluding the Reformation); formation of nation-states;
relationship between Western Europe and non-Euro-
pean and non-Christian people and traditions. P/NP
or letter grading.

1BH. Introduction to Western Civilization: Circa
AD 843 to circa 1715 (Honors). (S) Lecture, three hours;
discussion, two hours. Honors sequence parallel to
course 1B. P/NP or letter grading.

1C. Introduction to Western Civilization: Circa
1715 to Present. (5) Lecture, three hours; dis-
cussion, one hour. Introduction to history of the West and its con-
nection to rest of world after 1715, during period of
swelling political, social, and cultural tensions and
transformations. Topics covered include industrialization,
rise of nationalism and mass politics, revolu-
tionary movements, urbanization, mass global migra-
tions, European expansion and imperialism, and de-
colonization, 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). (S) Lecture, three hours;
discussion, two hours. Honors sequence parallel to
course 1C. P/NP or letter grading.

2B. Social Knowledge and Social Power. (5) Lec-
ture, three hours; discussion, two hours. History of so-
cial knowledge and social power in the 19th and 20th
centuries. Everyday ideas and practices about human
nature, common sense, and community and relation
of those practices to social thought, social engi-
neering, and science. Themes include develop-
ment of social knowledges through public activities
and discourses; how social knowledge differs in agri-
cultural, industrial, and information-based
political economies; and how social science ad-
dresses these issues. P/NP or letter grading.

2C. Religion, Occult, and Science: Mystics, Here-
tics, and Witches 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 ter-
morizing forces through Catholic Church and the Church’s tem-

tors of their lives by embracing transcendental reli-
gious experiences and dreaming of apocalypse and
witchcraft. Examination of experiences in context of
genesis of the scientific revolution and origi-

doctrinal changes. P/NP or letter grading.

3A-3B-3C. History of Science. (5–5–5) Lecture,
two hours; discussion, two hours. History maj ors may not apply these courses toward general edu-

cation requirements. P/NP or letter grading.

3A. Renaissance to 1800. Survey of beginnings of physical sciences in
volving transformation from Aristotelian to Newtonian

cosmology, mechanization of natural world, rise of ex-
pertise in scientific experimental science, and origin of scientific
writing. P/NP or letter grading.

3B. Enlightenment to 1900. In this period science be-

came part of Enlightenment campaign for reason and

culture of an Industrial Revolution. New social sci-
ence and evolutionary debates about science and reli-
gion demonstrate its rising intellectual and practical
significance. 3C. 20th Century. Ranging from startling
breakthrough of quantum, new forms of nuclear
weapons, to molecular reductionism in biology and

campaigns for statistical objectivity, examination of
involvement of science in technological, military, in-
elletrally and internationally. (Same as Science M10A–
M10B.) Lecture, three hours; discussion, two hours.
Exploration of development of scientific knowledge and
practice; 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,
two hours. Holocaust, murder of six million Jews by Germans in Nazi-occupied Europe during
World War II events during modern history. Examination of origins of Holocaust, persecu-
tors and victims, and changing effort to come to
terms with this genocide. Exploration of forces that led
to Holocaust, including emergence of scientific
rationalism, 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, mean-
ings of resistance and culpability, and political and
philosophical implications of Holocaust. Exploration of
how genocide of European Jewry was intertwined with targeting of others, including Roma, Slavs,
black Germans, disabled, homosexuals, and political
opponents of National Socialism. P/NP or letter
grading.

8A. Colonial Latin America (Honors). (5) Lecture,
two hours. History of Latin America from contact period to independence (1490s to 1820s), with emphasis on con-
vergence of Native American, European, and African cul-
tures 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.

8C. Latin American Social History. (5) Lecture,
two hours; discussion, one hour. Honors course par-
allel to course 8B. P/NP or letter grading.

9A-9E. East Asia. (5–5) Lecture, three hours; dis-
cussion, two hours. Not open for credit to students with credit for course
9F. Southeast Asia. (5) Lecture, three hours; dis-
cussion, two hours. Not open for credit to students with credit for course

10B. Introduction to Civilizations of Africa since
1800. Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course

11A. Introduction to Civilizations of Africa
(Honors). (5) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course
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 antiquity to 1000. 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 circa 1000 to 2000. Focus on social, political, intellectual, cultural, and economic aspects of early modern regimes and empires and rise of modern China into contemporary era.

11AH–11BH. History of China, Honors (5–5) [Honors]. (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 the first mass incarceration of black people occurred to days when Los Angeles first became global epicenter of human confinement. Exploration of major eras and turning points in city’s rise as both national and global leader in incarceration with review of historical foundations of mass imprisonment 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 consequences of neoliberalism—theory that society is best organized on principles of free trade, deregulation, and privatization. Combination of political, economic, and intellectual history to construct genealogy of neoliberal thinking by attending to 18th- and 19th-century liberalism, colonialism, imperialism, rise of social democracy and military Keynesianism, and cold war resuscitation of 19th-century liberalization. Coverage of economic crisis of 1970s, restructuring of neoliberal political economic system in U.S., Europe, global south—specifically during, structuring evidence of environmental destruction, and military intervention. Tracing of colonial roots of global north-south divide to reveal how neoliberal policies represent longer process of accumulation by dispossession 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. Ongoing growth and normalization of poverty, violence, and racial hatred in neo-liberal present have direct linkage to earlier moment when colonial rulers brought about sharp break in structure of inequality. Examination of some of most important voices of anti-colonial and anti-imperialist struggle from comparative perspective in order to historicize current conjuncture. Readings include Aimé Césaire, Frantz Fanon, Ho Chi Minh, Totten Miyazaki, Sun Yat-Sen, Shusui Kotoku, Malcolm X, Che Guevara, and Mahatma Gandhi. Use of dialogue to reveal and reflect on contemporary acts and difficulties of today's thinker/activist pairs. Historical background for each thinker and active engagement in interpretation and discussion of texts. Project group as way to reflect on current context for greater engagement.


14. Atlantic World, 1492 to 1830. (5) Lecture, three hours; discussion; one hour. Strongly recommended for History majors planning to take more advanced courses in Atlantic history. Survey of trends in thought, society, and culture during period from 1500 to 1900. Exploration of idea of Atlantic world and few of major historical trends that shaped its history, including migration, slavery, imperial conflicts, and revolution. Atlantic history approach to discipline of history that allows conceptualizing issues of diversity and othering in ancient world. Satisfies Writing II requirement. P/NP or letter grading.

15. Flax Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. World History to AD 600. (5) Lecture, three hours; discussion, two hours. Examination of earliest civilizations of Asia, North Africa, and Europe—Mesopotamia, Egypt, Israel, Phoenicia, Persia—from development of settled agricultural communities until about AD 500, with focus on rise of cities, organization of society, nature of kingship, writing and growth of bureaucracy, varieties of religious expression, 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 and Industrial Revolution, structured around a broad chronological narrative of salient developments. Use of thematic and comparative approaches, with certain recurring themes and institutions that matter to culture and reading of variety of contemporary accounts 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, two hours. Broad thematic survey of world history since the mid-18th century. Examination, through lecture and discussion, of global implications of imperialism, total war, nationalism, cultural change, decolonization, changes in women’s rights and roles, and eclipse of world community. Designed to introduce students to historical study, from modern leader/ thinker/activist pairs. Historical background for each topic covered. P/NP or letter grading.

60. 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 300 BCE, rise and fall of Achaemenid Persia, first world empire of antiquity, which was ended by Alexander the Great, whose campaigns were as transformative as they were violent. Alexander connected ancient Mediterranean and Near East as never before, ushering in new era and forever changing shape of world, or ancient world. Focus on themes of ancient kingship and political ideology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous state. Exploration of major eras and key connections, interactions, and circuits that gave rise to modern world. P/NP or letter grading.

60W. Achaemenid Civilization and Empire of Alexander. (5) Same as Ancient Near East M60W and Iran M60W.) Lecture, three hours; discussion; one hour. Required: English Composition 3. Not open for credit to students with credit for course M60. Survey of period of rise of empire and fall of Achaemenid Persia, first world empire of antiquity, which was ended by Alexander the Great, whose campaigns were as transformative as they were violent. Alexander connected ancient Mediterranean and Near East as never before, ushering in new era and forever changing shape of world, or ancient world. Focus on themes of ancient kingship and political ideology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous state. Exploration of major eras and key connections, interactions, and circuits that gave rise to modern world. P/NP or letter grading.

94. What Is History? An Introduction to Historical Thinking and Practice. (4) Lecture, two hours; discussion, two hours. What is history, who is it that we study, how do we study, and why should we study history? Introduction to basic principles of historical inquiry. Exploration of how we come to know about the past and why it matters. In-depth examination of how the historian works and analysis of sources and visual evidence. Seminar-style discussion. P/NP grading.

96W. Introduction to Historical Practice. (5) Seminar, three hours. Required: English Composition 3. Introduction to study of history, with emphasis on thematic survey of world history since the mid-18th century. Satisfies Writing II requirement. Letter grading.

97. Historical Practices Adjunct Seminar. (1) Seminar, one hour. Corequisite: any course from History 97A through 97P. Limited to History majors. Exploration of topics covered in courses 97A through 97P in context of depth through supplemental readings, discus- sions, or other activities. P/NP grading.

97A–97E. Introduction to Historical Practice: Variable Topics. (4 each) Seminar, three hours. Discussion class of no more than 15 students. Introduction to a 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; 97B. Medieval 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; 97L. African History; 97K. History of Religion; 97L. Jewish History; 97M. Southeast Asian History; 97N. Indian History; 97O. World History.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper Division Courses

100. History and Historians. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for freshmen. Study of how historians think and write, with an emphasis on intellectual processes by which history is written, results of these processes, and sources and development of history. Attention also to representative historians. P/NP or letter grading.
101. Topics in World History. (4–4) 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 credit 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, but are not limited to: gender, race, ethnicity, and political economy. May be repeated for credit with topic and/or instructor change. 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, religious, social, and political exchange. Weekly focus on a particular theme, with lecture material supplemented by translations of writings of princes, poets, tribesmen, travelers, and mystics who created the letters between Armenia, marqand, and Delhi, and even as far as Siberia and China. Examination of why and how various ethnic and professional groups made Persian into one of most important languages in world history. P/NP or letter grading.

velopment of imperialism and on constitutional and social struggles of late republic. 114B, From Death of Caesar to Time of Constantine. Early empire treated in detail, supplemented by survey of social and economic changes in 3rd century. 114C. Transformation of Classical World. 115A. Development of imperialism and on constitutional and social struggles of late republic. 115B. Development of imperialism and on constitutional and social struggles of late republic. 116A-116B. Byzantine History. 44-4 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to topics in Greek and Roman history, including Roman law, ancient Greek and Roman slavery, world of Caesar Augustus, Greek democracy, and Alexander the Great. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

119A-119B. Medieval Europe. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, socioeconomic, religious, and cultural continuity in medieval history of Byzantium, Reforms of Diocletian, Byzantium’s relations with Latin Europe, Slavs, Saxons, Turks, and Arabs. P/NP or letter grading.

120A-120B. East-Central Europe. 44-4 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 humanism through the letter grading. 119A. 400 to 1000; 119B. 1000 to 1500.

120C. 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 its partial failure in economy, politics, and culture. 120B. Short 20th Century, 1918 to 1990. Analysis and interpretation of stormy history of crisis zone of Europe where wars, revolts and revolutions, and different forms led to historical tour. 70 years of departure from Western values and at last effort to turn back to them.


120D. Film and History: Central and Eastern Europe, 1945 to 1989. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Postwar history of central and eastern Europe (1945 to 1989), using eight Czech, Polish, and Hungarian films to explore life under social stateist modernization dictatorship. P/NP or letter grading.

121A. History of Modern Europe: Renaissance and Reformation, 1450 to 1660. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Renaissance, new forms of representation, and discourse about rule and obedience in Europe from mid-15th through 16th century; popular culture; peasant society, refashioning of religious and power, localization. P/NP or letter grading.

121B. History of Modern Europe: Baroque Culture and Absolutist Politics, 1660 to 1715. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Crisis of Old Regime, impact of French Revolution and Napoleonic empire, P/NP or letter grading.

121C. History of Modern Europe: Old Regime and Revolutionary Era, 1715 to 1815. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Absolutism and reform, challenge of new political and economic ideas, crisis of Old Regime, impact of French Revolution and Napoleonic empire, P/NP or letter grading.

121D. History of Modern Europe: Bourgeois Century, 1815 to 1914. 44 Lecture, one hour (when scheduled). Designed for juniors/seniors. Restorations, political movements, Industrial Revolution, uprisings of 1848, unification of Germany and Italy, imperialism, rise of socialism, population growth, changes in social structure, origins of World War I. P/NP or letter grading.

121E. History of Modern Europe: Era of Total War, 1914 to 1945. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. World War I, interwar period, and World War II. Social, cultural, political, and economic aspects, with focus on strain between model of parliamentary democracy and dynamics of mass politics (e.g., Bolshevik Revolution, Italian Fascism, national socialism, and Spanish Civil War). P/NP or letter grading.

121F. History of Modern Europe: World War II and Its Aftermath, 1939 to Present. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. World War II, origins and persistence of Cold War, reconstruction in West, de-Stalinization, Cold War, and change in western background to and course of 1989 revolutions, current political configuration. P/NP or letter grading.


122B. Nationalism and Modernization in 19th-Century Germany. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, assimilation, growth of national consciousness, emergence of bourgeois public sphere, displacement of gender in cultural life, post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

123D. History of Low Countries. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Low Countries from 1830 to 1918, Netherlands and Belgium in context of Europe after 1945. P/NP or letter grading.

123B. The 20th Century. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transition from Old Regime to modern state, and finally reunification. Considerations of political, social, economic, and cultural spheres. P/NP or letter grading.

123C. History of Low Countries. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, social, and economic developments and growth of state, Napoleonic era, reconstruction of society after World War II, with emphasis on political and cultural history. Topics include Middle Kingdom; Dutch Republic in 17th century; Low Countries from 1830 to 1918, Netherlands and Belgium in context of Europe after 1945. P/NP or letter grading.

124A. Europe in Age of Revolution, Circa 1775 to 1815. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of Old Regime, impact of French Revolution and Napoleonic empire, P/NP or letter grading. 124A. 19th Century, 1815 to 1914. Social history of 18th- and 19th-century France, including growth of modern consumer culture, popular culture, Catholic resurgence, Louis XIV, and achievements in arts and literature. 124B. France, 1715 to 1817. Ancien Régime and time of revolutions. Critical discussion leading to French Crisis of 1830, collapse of state, Napoleonic era, reconstruction of society through monarchies and revolts of 19th century. 124C. Making of Modern France, 1871 to Present. French history leading to democratic bureaucracy in two wars and three republics.

125A. Baroque and Enlightenment Germany. 44 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 system, and baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.

125B. Nationalism and Modernization in 19th-Century Germany. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, assimilation, growth of national consciousness, emergence of bourgeois public sphere, displacement of gender in cultural life, post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

125C. 20th-Century Germany. 44 Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transitions with Latin Europe, Slavs, Sassanids, Arabs, and Turks and culture.
127. History of Russia: Culture and Society in Imperial Russia, (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisites: courses 207B or 209A or 110. Designed for juniors/seniors. Thematic examination of culture and society in Russia during era of state-sponsored Westernization (1689 to 1917). Topics include nobility, peasantry, change, P/NP or letter grading.

129A-129B. History of Italy, (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 129A. 1350 to 1559. Most important social, economic, political, and cultural developments in history of Italy during later Middle Ages and Renaissance. 129B. 1559 to 1848. Counter-Reformation and absolutism, Enlightenment reforms, revolutionary era, and first phase of Risorgimento. 129C. 1848 to present. Political, economic, social, diplomatic, and ideological developments.

129A-129B. Social History of Spain and Portugal. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to political, economic, social, and cultural history of Spain and Portugal from the end of the Middle Ages through the 19th century. Themes include tolerance in medieval Europe, impact of syphils, birth of courtesan, regulation in 19th-century Europe, white slavery scare, and contemporary gay sex trade. Reading includes novels, primary sources, and testimony by sex workers. P/NP or letter grading.

134B-134C. Economic History of Europe, (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 134B. 1780 to 1914. Analysis of emergence of European world economy, first Industrial Revolution; revolution and changes in technology, demographic patterns, education, transportation, and interrelationship between Western core and European peripheries in process of industrialization. 134C. 20th Century. Origins of European economy after World War I and II and in 1990s; impact of fourth and fifth Industrial Revolutions; Great Depressions of centuries between 1930s, 1970s, and 1980s; and changing modernization strategies; international integration of economies; Soviet modernization dictatorship in Eastern Europe; collapse of Eastern European Union; and the fall of the Soviet Union.

135A. Europe and World: Exploration and Conquest, 1400 to 1700. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. First phase of European expansion in Americas, Africa, and Asia. Analysis of motives and methods of expansion, differing patterns of European settlement, including plantation economy, and development of new commercial networks, including Atlantic slave trade.

135B. Europe and World: Colonialism, Slavery, and Revolution, 1700 to 1870. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Growth and gradual increase of European dominance of world trade, impact of European colonialism in New World, Africa, and Asia, influence of new revolutionary ideas that took shape in wake of Enlightment of 18th century, and beginnings of industrialization. P/NP or letter grading.

135C. Europe and World: Imperialism and Postcolonialism, 1870 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Imperialism in Europe and in Africa; European conquests and their impact on world in modern period. Relationship of European and world history, from partition of Africa to founding of India and Pakistan. Global consequences of Cold War and new place of Europe in world. P/NP or letter grading.

136A-136B-136C. History of Britain, (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of British economy, society, and politics, with focus on dynamics of both stability and change. P/NP or letter grading. 136A. Tudor-Stuart Times, 1485 to 1715. Political, socioeconomic, religious, and cultural history of Britain under Tudor and Stuart monarchs. Topics include Reformation, transformation of economy, establishment of overseas colonies, 17th-century political upheavals and their impact on political and socioeconomic structures.

136B. Making of Modern Britain, 1715 to 1867. Social, economic, political, and cultural history of Britain from Hanoverian revolution in politics to advent of mass democracy in mid-Victorian era. Themes include social changes, urbanization, emergence, changes in work and unemployment, Charles Dickens and great depression, impact of first British Empire, loss of America, shifts in religion and culture, and Victorian age. 136C. Modern Britain since 1832. 137A-137B. British Empire since 1783, (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and economic development of British Empire, including evolution of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

138A. Colonial America, 1600 to 1763, (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of molding of American society in English North America from 1600 to 1763. Emphasis on interaction of three competing cultures: Western European, West African, and American Indian. P/NP or letter grading.

138B. Revolutionary America, 1760 to 1800. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Inquiry into origins and consequences of American Revolution, nature of revolutionary process, creation of constitutional national government, and development of capitalist economy. P/NP or letter grading.

138C. U.S., 1800 to 1850, (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Discussion of major social, political, economic, and cultural transformations of first half of 19th century and how these changes helped to drive wedge between North and South. P/NP or letter grading.


141A-141B. American Economic History, (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic history of U.S. from 1700 to 2010. Role of economic forces, institutions, individuals, and groups in promoting or impeding effective change in American economic life. From 1700 to 1930. To what extent was the technico-skeleton of modern industrial structure was formed. How and why American economy evolved into dual economy, characterized by center of firms larger than 1930 and influence of smaller firms. 141B. 1910 to Present. Dynamics of change in dual economy, with focus in greater detail on interrelationships between macro and micro developments in economy and on growing interdependency of U.S. economy and world economy from 1910 to present. 142A-142B. Intellectual History of U.S., (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Principal ideas about human and nature and society that have been at work in American history. Sources of these ideas, their connections with one another, their relationship to life and literature in the modern period. 142B. 1929 to 1960. Political, economic, intellectual, and cultural aspects of American democracy. Since 1960. Focus on political, social, and diplomatic developments that have shaped U.S. since 1960.

M132. History of Religion in U.S. (4) (Same as Religion M142C,) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of influence of religion on daily life and on culture in the United States. Emphasis on religion and political movements, on the role of religion in the history of the United States, and on the role of the United States in the religious history of the world. M142C. History of Religion in U.S. (4) (Same as Religion M142C,) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that developed during the 20th century. M133A-M133B. History of Women in Europe, (4–4) (Same as Gender Studies M133A-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 Gender Studies M133C,) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include tolerance in medieval Europe, impact of syphils, birth of courtesan, regulation in 19th-century Europe, white slavery scare, and contemporary gay sex trade. Reading includes novels, primary sources, and testimony by sex workers. P/NP or letter grading.

136B-136C. History of Russia: Culture and Society in Imperial Russia, (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Thematic examination of culture and society in Russia during era of state-sponsored Westernization (1689 to 1917). Topics include nobility, peasantry, change, P/NP or letter grading.
political, economic, and social circumstances. Evolution of national and global framework for mass circulation of popular cultural expressions, as well as arrival of new technologies that enabled that development. P/N or letter grading.


144. America in World. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reconsideration of U.S. exceptionalist approach to national self-understanding by rethinking specific aspects of American history in more international context that goes well beyond foreign relations and international affairs to reconceptualize aspects of American economic, intellectual, cultural, and social history. Competition and cooperation between U.S. nationalism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in 20th century. P/N or letter grading.

145A-145B. Urban History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading. 145A. U.S. Cities: Overview. Demographic, geographic, political, economic, and social development of U.S. cities in relation to broad trends in U.S. history as well as to their own more special histories. Emphasis on mastery of facts and chronology, and awareness of role of theoretical issues and fundamental concepts in urban history. 145B. Topics in U.S. Urban History. Exploration of one aspect of U.S. urban history in depth without having to attend to basic chronology. Topics include crime, media, police, urban economics, and urban government. Students do primary research papers based on local materials in addition to written examinations. May be repeated for credit up to a maximum of 16 units with topic and/or instructor change.

146A-146B. American Working Class Movements. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major episodes in social, trade union, and cultural history of American working class from Colonial times to present, with emphasis on both organized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/N or letter grading.

146C. Migrant Nation: How Mobility Shapes American Society, Politics, and Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Theoretical and chronological survey of immigration and internal migration, cultures of racial and ethnic stratification, migrant political activism, and policies that govern migration, citizenship, and exclusion (letter grade only).

146D. U.S. and Comparative Immigration History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Use of overlapping diaspora model that integrates North Atlantic (Europe), South Atlantic (Afro-Caribbean), Pacific (China/Japan/Hawaii), and Latin (Mexico to Brazil) worlds to provide chronological and analytic survey of American and Comparative Immigration from 1760 to present. Special focus on Southern California. P/N or letter grading.

147C. History of Women in Colonial British America and Early U.S., 1600 to 1860. (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 English and American Indian cultures in early 17th century to rise of women’s rights movement in mid-19th century. P/N 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 seniors. Introduction to major themes in history of American women from abolition of slavery to the second-wave feminism. P/N 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. Study of history and culture of deaf communities in America (circa 1800 to present) by exploring major events impacting deaf people, including development of sign language, deaf education, audism, politics of deafness, eugenics, deaf revolution movements, and role of hearing technology. Historical development of emergence, growth, and development of deaf identity over time. P/N or letter grading.

148. Introduction to Public/Applied History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for general survey of historical definitions of, and debates about, public and applied history, that is, history in non-academic settings across different periods and geographic regions. Students will be introduced to various methods of historical research used to inform museum exhibitions, public policy, historic commemoration, digital projects, and documentary and popular media productions. Through assigned readings, analytical writing, and collaborative research, students engage with variety of approaches, tools, and media. Research on local historical topics to foster well-grounded understanding of how history is applied and interpreted in variety of places, settings, and media for variety of audiences and purposes. P/N or letter grading.

149A-149B. Native American Indian History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Native Americans from contact to present, with emphasis on American Indian response to European intrusion, historical processes, and continuity of Native American cultures. Focus on selected Indian peoples in each period. P/N or letter grading. 149A. Precontact to 1830; 149B. 1830 to Present.

150A. Comparative Slavery Systems. (4) Same as African American Studies M158A) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North America, Caribbean, and Latin American slave societies from the 16th century to the present. P/N or letter grading.

150B-150C. Introduction to Afro-American History. (4–4) Same as African American Studies M158B-M158C) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Survey of Afro-American experience with emphasis on three great transitions of Afro-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieus. P/N 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 seniors. Exploration of musical genre known as funk that emerged in its popular form during late 1960s and reached popular high point in black culture, during 1970s. Funk, fusion of gospel, blues, jazz, rock and soul, blues, soul, rock, and many other musical styles, offer students unique window into recent African American history. P/N 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 seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collectively built institutions, associations, or movements and ideological self-definition. P/N 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). Designed for seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent (specifically-Mexico-Mexicali) north of Rio through 17th, 18th, and 19th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical forces affecting community. Social structure, economy, labor, culture, political organization, conflict, and international relations. Emphasis on social forces, class analysis, social, economic, and political influences on Chicano/Latino society. Readings and discussions related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/N or letter grading.

151B. History of Chicano Peoples. (4) Same as Chicano/o and Central American Studies M159B) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent in U.S. through 20th century, with special focus on labor, political, and cultural issues. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical and policy issues affecting community. Through framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/N or letter grading.

151C. Understanding Whiteness in American History and Culture. (4) Same as Chicano/o and Central American Studies CM182) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. Letter grading.

151D. Chicana Historiography. (4) Same as Chicano/o and Central American Studies M158 and Gender Studies M157) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history has placed Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and moments of Conquest, Mexican Period, American Conquest, Mexican Revolution, and Chicano Movement to excavate untold stories about women’s participation in and contributions to making of Chicana and Chicano history. P/N or letter grading.


153. American West. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of West as frontier and as region, in transit from Atlantic seaboard to Pacific, from 17th century to present. P/NP or letter grading.

154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, intellectual, and political development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of area, changing physical environment, and interpretations of city; and Los Angeles' place among American urban centers. P/NP or letter grading.

155. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development 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.

156. Early Latin America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, economic, cultural, and political development of Latin America and its global context—African, American, European, Islamic, and Asian. P/NP or letter grading.

157A. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey 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 Indian groups and patterns on basis of records produced by Indians themselves. P/NP or letter grading.

157B. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive analysis of economic, social, and political problems of Latin American nations from the independence to around 1910. P/NP or letter grading.

160A. Latin American Elitismo. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of concept of permanent crisis, and description and explanation of permanent revolution under one-party democracy. Analysis of unresolved colonial and 19th-century problems and crises that have influenced modern-day Mexico, if in modified form. P/NP or letter grading.

161. Topics in Latin American 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; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of political, economic, social, and cultural development of Brazil, with emphasis on modernization and struggle for change, 1850 to present. Discussions, films, slides, and guest speakers supplement and complement lectures. P/NP or letter grading.

162B. Brazil and Atlantic World, 1500 to 1802. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of 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 roots 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. History of economic, political, social, and cultural developments that have shaped Argentinian history from colonial time to present. Emphasis on 19th-century development of political economy and 20th-century formation of mass society. P/NP or letter grading.

164B. Topics in African History: Africa and Slave Trade. (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.

164. Topics in African History: Africa and Diaspora. (4–4) 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 and contact with Europeans for 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.

164E. Topics in African History: Africa. 1945 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. History of Africa south of Sahara from end of World War II to present. Last phases of colonial rule in Africa, African nationalism, Pan-Africanism, liberation movements, and achievement of independence. Political, social, and economic change in colonies and in independent states of Africa. Neocolonialism, experiences in national development, apartheid in South Africa, ideological conflicts in contemporary Africa, and Africa in world affairs since 1957. P/NP or letter grading.

165. Topics in African History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Africa south of Sahara from end of World War II to present. Preparedness: one prior course in African history at UCLA. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

165SL. Service Learning and Historical Understanding in South Africa. (4) Fieldwork, six hours. Students participate in two service learning projects in South Africa to help them understand ongoing historical legacy of apartheid in South Africa, differences between urban and rural poverty, and link between rural poverty and urban overcrowding. Students work directly with families and children under guidance of local community organizers. Offered in summer only. P/NP or letter grading.

166A-166B. History of West Africa. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

166A, 166B. History of West Africa. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

167A. History of Northeast Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of northeast Africa from earliest times to present with emphasis on economy and society, evolution of state, and significance of Christianity and Islam. P/NP or letter grading.

167B. 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 wider Indian Ocean system, and colonial conquest to gaining of independence and postcolonial challenges. P/NP or letter grading.

167C. History of Central Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of central Africa from earliest times to 1800, with emphasis on establishment of agriculture, growth of trade, rise of states, and incorporation of region into world economy. P/NP or letter grading.

168A-168B. History of Southern Africa. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Attention to social and economic as well as political aspects. P/NP or letter grading.

168A. History of South Africa. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Attention to social and economic as well as political aspects. P/NP or letter grading.

168B. Since 1870. Interactions between inhabitants of southern Africa since 1870.


170A. Culture and Power in Late Imperial China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: courses 11A, 11B. Designed for juniors/seniors. Analysis of relations of central and provincial government and resistance in late imperial China (1000 to 1700), with emphasis on interplay of economic forces, ideas, and social and political institutions. Examination of institutions of state, family, school, and city; idioms of folk religion, death, and afterlife; political, legal, and medical discourses of body, personhood, and social identity; love, sexuality, and private life. P/NP or letter grading.

170B. Selected Topics in Chinese History from 1500. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 11A, 11B. May vary from year to year. Recent offerings include law, society, and culture; society and economy; and rural China. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M170C. History of Women in China, AD 1000 to Present. (4) Same as Gender Studies M170C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literati culture, feminist movement, and women and communist revolution. P/NP or letter grading.

170D. 20th-Century China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Topics that may vary from year to year. Recent offerings include law, society, and culture; society and economy; and rural China. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

171. Variable Topics in Japanese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Important topics in Japanese history, including political change, eco-
172A. Japanese—Ancient and Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from prehistory to 1600. P/NP or letter grading.

172B. Japanese History: Early Modern, 1600 to 1868. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from 1600 to early 19th century. P/NP or letter grading.

172C. Modern Japanese History, 1850 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Investigation of meaning of modern “Japan” for newly national (and imperial) populace, and resistance to consequent radical upheavals in daily experience, both in Japan and Asia. Exploration of meaning of “modern” and fraught interplay of imperial and anticolonial ambitions in domestic and foreign policy during World War II experienced by women and radical and conservative effects of Allied Occupation. Foregrounding of professional practice of history and historical creation of categories, practices, and perspectives that have become second nature (i.e., linear time, nation, and modern social norms). Topics also include gender, sexuality, aesthetics, fascism, eugenics and race, hygiene, bloodsucking, monsters, anarchism, memoirs, satirists, feminism, art, cinema, protest, and Cold War. Socratic-style discussion in lecture. P/NP or letter grading.

173A. Japanese Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics in 19th–20th century Japan include premodern satire in postmodern comic books, American culture in 1950s' Japanese visual culture, gender in photography, and relationship of monster movies to postwar politics. P/NP or letter grading.

M173B. Women in 20th-Century Japan. (4) (Same as Gender Studies M173B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as women and new political order (1900 to 1930), women, war, and empire (1930 to 1945), and women in consumer society (1980s to 1990s). P/NP or letter grading.

M173C. Shinto, Buddhism, and Japanese Folk Religion. (4) (Same as Religion M173C) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of various Ways, great and little; Shinto’s connection with cultural nationalism, Buddhism’s medieval Reformations and Zen’s relation to warrior culture, folk religious aspects such as shamanism, ancestor worship, and millenarianism. P/NP or letter grading.

173D. Postwar Japanese History through Film. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of postwar Japanese history through medium of film and culture that is oft-overshadowed. Japanese cinema can be seen as reflecting on and questioning place of Japan in world reshapéd by catastrophic war and its lingering specter. Through screenings and critical discussion of films from the half-century after World War II, consideration of cultural, aesthetic, and sociopolitical significance of postwar as demarcated category in Japan. Reflection on ways in which filmic representations of state of being postwar engaged with lived history, memory, and present time. P/NP or letter grading.

174A. Early History of India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to civilization and civilizations of India. Survey of history and culture of South Asian subcontinent from earliest times to founding of Mughal Empire. P/NP or letter grading.

174B. History of British India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of expansion of British rule, theories and practice of governance, constitution of India as oriental despoticism, epistemological projects. British successes and achievements and last of colonial rule. P/NP or letter grading.

174C. Contemporary South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim communities of what eventually became nations of India, Pakistan, and Bangladesh. Topics include social, political, religious, and cultural history. P/NP or letter grading.

M174D. Indo-Islamic Interactions, 700 to 1750. (4) (Same as Religion M174D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim communities of what eventually became nations of India, Pakistan, and Bangladesh. Topics include social, political, religious, and cultural history. P/NP or letter grading.

174F. Gandhi and Making of Modern India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of life and ideas of Mahatma Gandhi, known world over as prophet of nonviolence and principal architect of Indian independence movement. Gandhi was also spiritual thinker, social reformer, critic of Western modernity, interpreter of Indian civilization, staunch supporter of Indian syncreticism, voluminous writer, and forefather of many social and ecological movements of our times. Focus on Gandhi’s idea of satyagraha, resistance to oppression through truth (“satya”) and nonviolence (“ahimsa”), and his nonviolent campaigns against colonial rule, before moving to broader assessments of his life and thought, his critiques of modernity and industrial civilization, and his relationship to Indian nationalism. Discussion of modernization, decolonization, and modernist critiques of his ideas, and reflections on his place in modern India and global circulation of his ideas over last six decades. P/NP or letter grading.

175A. Cultural and Political History of Contemporary South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for 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.

175B. Indian Identity in U.S. and Diaspora. (4) (Same as Asian American Studies M172A) Lecture, three hours; discussion, one hour (when scheduled). Designed for 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.

175C. Special Topics in Contemporary Indian History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Topic with focus on history of Southeast Asia from thematic or comparative perspective. Topics may include history of human rights in Southeast Asia, gender and sexuality in island Southeast Asia, and economic history of Southeast Asia. P/NP or letter grading.

176A. History of Southeast Asia: Southeast Asia since 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of modern Southeast Asia, with emphasis on expansion of European influence in political and economic life, the great wars, and process of decolonization. P/NP or letter grading.

176C. Philippine History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, cultural, and political history of Philippines from Spanish colonial through imperial era to post-1986. Emphasis on questions of identity under colonialism, understanding Revolutions of 1896 and 1898, and politics of Philippine nationalist discourse of the 1930s. P/NP or letter grading.

176E. Vietnam: Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history and culture of Vietnam from about 700 BC to present, including political, social, and economic developments as well as international relations in post-1954 period. P/NP or letter grading.

177A. National Histories of Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of Southeast Asia from thematic or comparative perspective. Topics may include history of human rights in Southeast Asia, gender and sexuality in island Southeast Asia, and economic history of Southeast Asia. P/NP or letter grading.

178A. Introduction to History and Culture of Indian Jews. (4) (Same as Asian 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, may include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and symbiotic dynamics between Iranian Jews and other Iranians. P/NP or letter grading.

178B. Comparative Histories of Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of Southeast Asia from thematic or comparative perspective. Topics may include history of human rights in Southeast Asia, gender and sexuality in island Southeast Asia, and economic history of Southeast Asia. P/NP or letter grading.

179A. Variable Topics in History of Medicine. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include global health, biomedical technologies, gender and medicine, Chinese medicine, psychiatry and mental illness, 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 from Renaissance to Romantic era. Topics include establishment of anatomy, physiology, modern clinical medicine, psychiatric and human body, medical approach to mental illness, rise of anaesthesia-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. Sociohistorical look at changes in medical science, infectious disease, and health and illness in 20th century within context of development of hospitals and research institutions and of changing American society. Topics in particular include antibiotics and other nonsteroid drugs, cancer research and treatment, mental illness, patient activism, and genetic medicine. 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 sci-
ence 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.

M108B. Historical Perspectives on Gender and Science. (4) (Same as Gender Studies M108B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating the various concepts and methods of science. Topics include gendered conceptions of nature, persons of man of science, role of women in scientific resolutions, historical 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. History of Los Angeles, with special emphasis on pivotal roles Jews have played in shaping Los Angeles and role that Los Angeles has played in reshaping Jewish identities, communities, and cultures. Exploration of themes related to regionalism in American Jewish history, comparative immigration and migration patterns, and frontiers and borderlands, while providing overview of historical methodologies and interpretation. Examination of ethical and methodological implications of writing history in digital age and learning how to read and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through required service work with community partners, 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; fieldwork, two hours. Designed for juniors/seniors. History of Los Angeles, with special emphasis on pivotal roles Jews have played in shaping Los Angeles and role that Los Angeles has played in reshaping Jewish identities, communities, and cultures. Examination of themes related to regionalism in American Jewish history, comparative immigration and migration patterns, and frontiers and borderlands, while providing overview of historical methodologies and interpretation. Examination of ethical and methodological implications of writing history in digital age and learning how to read and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through required service work with community partners, development of digital public history projects. 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. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as Jewish Studies M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. 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 unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M182D. Modern Jewish History. (4) (Same as Jewish Studies M182D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M182E. 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 African cults; Renaissance 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.

M185B. History of Early Christians. (4) (Same as Religion M185B.) 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 responses to Jesus of Nazareth, writings produced during this period, movement's encounters with its religious, social, and political world, and methods of research. 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 Mesopotamian and their relationship to religious of ancient Israel; varying concepts of divinity, hierarchies of gods, prayer and cult, magics, wisdom, and moral conduct. 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 responses to Jesus of Nazareth, writings produced during this period, movement's encounters with its religious, social, and political world, and methods of research. P/NP or letter grading.

M185G. Religious Environment of Early Christians. (4) (Same as Religion 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 in context of Jewish world and great movement. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysticism, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.
mentum 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 facilitated by 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 required. 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 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 6 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A-191Q. Capstone Seminars: History. (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. S/U or letter grading. May be concurrently scheduled with course C201W; C191F.

191B. Medieval; 191C. Europe; 191D. Medieval; 191E. Latin America; 191F. Near East; 191G. East Asia; 191H. Science/Technology; 191I. World History; 191J. Digital History; 191K-191Q. Topics in History. (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. S/U or letter grading. May be concurrently scheduled with course C201W; C191F.

192. Directed Research in History. (4) Tutorial, to be arranged; fieldwork, 8 to 10 hours. Limited to seniors/ juniors. Internship in applied/public history setting coordinated through Public History Initiative. Students meet on regular basis with faculty supervisor. Completion of the required 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.

193C. Community and Corporate Internships in History. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to seniors/juniors. Internship in corporate, governmental, or nonprofit setting coordinated through Community and Corporate Internships. Students complete weekly written assignments, attend bi-weekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community and Corporate Internships. 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.

195DC. Quarter in Washington, DC, Internships. (4) (Same as Community Engagement and Social Change M195DC, Political Science M195DC, Public Affairs M195DC, and Sociology M195DC.) Tutorial, four hours. Limited to junior/quarter Senior in Washington program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with supervisor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in History. (4) Tutorial, three hours. Limited to seniors/juniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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 or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required.

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. In Progress grading (credit to be given only on completion of course 198C).

199. Directed Research in History. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. CULminating paper or project required. May be repeated for credit. History majors limited to 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses


200G. Theory of History; 200H. Jewish History; 200I. Armenia and Caucasus; 200J. Southeast Asia; 200K. Psychohistory.

C200F-C200Q. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Prospective on historiography involving close reading of critical historiographical literature, and primary sources on selected topics. Reading, discussion, and analytical writing culminating in one or several historiographical essays to be repeated for credit. S/U or letter grading. C200F. World. May be concurrently scheduled with course C187C; C200K. India. (Formerly numbered 200K.) May be concurrently scheduled with course C200Q. Japan. (Formerly numbered 200M.) May be concurrently scheduled with course C187R; C200Q. Theory of History. (Formerly numbered 200Q.) May be concurrently scheduled with course C187P.

M200V. Advanced Historiography: Afro-American. (4) (Same as African American Studies M200A.) Seminar, three hours. May be repeated for credit. S/U or letter grading.


200X. Advanced Historiography: Oral History. (4) Seminar, three hours. Introduction to practical, research-oriented theory.

200Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

200Z. Advanced Historiography: Chinese. (4) Discussion, three hours. Graduate survey of leading literature in Chicoan history, with emphasis on social 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. S/U or letter grading. 201A. Ancient Greece; 201B. Ancient Rome; 201C. Medieval. 201D. Early Modern Europe; 201E. Modern Europe; 201F. Russia/Eastern Europe; 201G. Britain; 201H. Latin America; 201J. Near East; 201L. China; 201O. Science/Technology; 201P. Armenia and Caucasus; 201Q. Southeast Asia; 201U. Psychohistory; 201V. Digital History.

C201H-C201W. Topics in History (4 each) Seminar, three hours. Designed for graduate students. Reading and discussion of selected topics. May be repeated for credit. May be concurrently scheduled with course C191D-C191P. S/U or letter grading. C201H. U.S. May be concurrently scheduled with course C191D; C201K. World. May be concurrently scheduled with course C191E; C201L. Latin America; C201M. Near East; C201N. China; C201O. Science/Technology; C201P. Armenia and Caucasus; C201Q. Southeast Asia; C201U. Psychohistory; C201W. Digital History.

202A-202B. Seminars: Comparative Modern Economic History. (4–4) Seminar, three hours. Course 202A is requisite to 202B. Designed for graduate students. Study of problems and themes in the 19th and 20th centuries, including such topics as industrialization, growth, demography, development, and economic change. In Progress (202A) and letter grading (202B).

203A-203B. Social Theory and Comparative History. (4–4) Seminar, three and one half hours every other week. Introduction to historically rooted social theory and theoretically sensitive history, following program
of Center for Social Theory and Comparative History. Each course may be taken independently for credit. S/U or letter grading.

203C. Theories in Cultural History. (4) Seminar, three hours. Introduction to social, linguistic, semiotic, and other new interpretive theories and practices developed in other fields and applied to historical material. Letter grading.

204A. Departmental Seminar: Approaches, Methods, Debates, Practice. (4) Seminar, three hours. Required of first-year departmental graduate students. Introduction to range of important methodological approaches and theoretical debates about writing of history that are influential across fields, geographical contexts, and time periods to stimulate appreciation and connection across fields, inviting students to think collectively and expansively about study and praxis of history. Introduction to sampling of scholarship produced by department faculty members with whom students may work. S/U or letter grading.

204B. Departmental Seminar: Many Professions of History (4) Seminar, three hours. Professional development seminar with practicum component. Focus primarily on exploring and demonstrating ways in which skills of historians are transferable to variety of professions and exercised in diverse ways and roles.

205A-205B. History Department Professional Development Seminars. (1–1) Seminar, one hour. Required of first-year graduate students. Introduction to issues in professional development of students in History Ph.D. program. In Progress (205A) and S/U (205B) 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.

C208A-C208B. Variable Topics: Interdisciplinary Studies. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Course C208A is not requisite to C208B. Topics may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Normally limited to and required of all modern European history graduate students. Introduction to topics, methods, and historiography of modern European history.

M211B. Early Modern European History. (4–4) 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. Course 212 is requisite to 213. Oral history; preinterview, interview, and postinterview transcription. Exploration of where historians have been, where they are now, where they can be, and where they should be as highly educated, actively engaged members of society.

M218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) Same as Classics M218, English M215, and French M210. Lecture, three hours; discussion. Examination of Medieval Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate transcription of medieval scripts, 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.

M235A. Economic History of 20th-Century Europe. (4–4) Seminar, three hours. Course 235A is requisite to 235D. Cyclical trend, various economic regimes, and integration process of Europe. In Progress (235C) and letter (235D) grading.

M236A. Proseminar: Political Psychology. (4) Same as Political Science 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.

245. Colloquium: European History. (4–4) Seminar, three hours. Course 245A is requisite to 245B. Designed for graduate students. In Progress (245A) and letter (245B) grading.

246A-246B. Seminars: Medieval History. (4–4) Seminar, three hours. Course 246A is requisite to 246B. In Progress (246A) and letter (246B) grading.

251A. Research, writing, and critical discussion of draft papers. Normally limited to and required of all entering graduate students. Critical introduction to historical method, with emphasis on new methodological and conceptual approaches, use of source materials, and current state of U.S. historiography.

254A. Anthropology and History of Mediterranean. (4) Same as Anthropology M254A and Eastern Languages M248A. 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, Levantinitism, thalassology, Mediterranean, French Mediterranean, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean cultural and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

255A-255B. Economic History of Europe, 1780 to 1939. (4–4) Seminar, three hours. Course 255A is requisite to 255B. Analysis of internationalization of European world economy, emergence of Western core and its relation with European peripheries. Comparative analysis on different regions, stressing main characteristics of postwar European economy. In Progress (255A) and letter (255B) grading.

256A-256B. Economic History of 20th-Century Europe. (4–4) Seminar, three hours. Course 256A is requisite to 256B. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

M236A. Proseminar: Political Psychology. (4) Same as Political Science 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.

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 process of Europe. In Progress (235C) and letter (235D) grading.

M236A. Proseminar: Political Psychology. (4) Same as Political Science 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.

C236B. Psychohistory. (4–4) Seminar, three hours. Course 236B is requisite to 236C. Exploration of individual and group psychological processes in their use and effect in 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. In Progress (241A) and letter (241B) grading.

242. Colloquium: European History. (4) Seminar, three hours. Normally limited to and required of all entering graduate students. Critical introduction to historical method, with emphasis on new methodological and conceptual approaches, use of source materials, and current state of U.S. historiography.

246A-246B-246C. Introduction to U.S. History. (4–4) Seminar, three hours. Graduate survey of significant literature dealing with U.S. history from the Colonial period to the present. Each course may be taken independently for credit. Core: Colonial Period; 246A, 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.

M248. Anthropology and History of Mediterranean. (4) Same as Anthropology M254A and Eastern Languages M248A. 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, Levantinitism, thalassology, Mediterranean, French Mediterranean, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean cultural and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

249A-249B. Seminars: Jacksonian America. (4–4) Seminar, three hours. Course 249A is requisite to 249B. In Progress (249A) and letter (249B) grading.

250A-250B. Seminars: U.S. History of Middle 19th Century. (4–4) Seminar, three hours. Course 250A is requisite to 250B. In Progress (250A) and letter (250B) grading.

251A-251B. Collaborative Research Seminars: American History. (4–4) Seminar, three hours. Research seminars taught jointly by two faculty members. In Progress (251A) and letter (251B) grading.

252A. Common readings and development of individual research projects. In Progress (252A) and letter (252B) grading.
252A-252B. Seminars: Recent U.S. History to 1930. (4–4) Seminar, three hours. Course 252A is requisite to 252B. In Progress (252A) and letter (252B) grading.

253A-253B. Seminars: Recent U.S. History since 1930. (4–4) Seminar, three hours. Course 253A is requisite to 253B. In Progress (253A) and letter (253B) grading.

254A-254B. Seminars: U.S. Social and/or Intellectual History. (4–4) Seminar, three hours. Course 254A is requisite to 254B. In Progress (254A) and letter (254B) grading.

255A-255B. Business Enterprise and American Culture. (4–4) Seminar, three hours. Course 255A is requisite to 255B. In Progress (255A) and letter (255B) grading.

256A-256B. Seminars: America in World. (4–4) Seminar, three hours. Course 256A is requisite to 256B. In Progress (256A) and letter (256B) grading.

257A-257B. In Progress (257A) and letter (257B) grading.

258A-258B. Seminars: U.S. Social and/or Intellectual History. (4–4) Seminar, three hours. Course 258A is requisite to 258B. In Progress (258A) and letter (258B) grading.

259A-259B. History of Women. (4) (Same as European Studies M238 and Linguistics M238.) Seminar, two hours. Preparation: two years of classical Chinese or working knowledge of classical Chinese. Readings in historiography and selected genres of historical documents. Letter 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 in America; racial concepts and dilemmas, 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.

264. History of American Education. (4) (Same as Education M201C.) Discussion, three hours. History of educational thought and of social forces impinging on American education from 1880s to present. Analysis of relation between these ideas and forces, and aims and practice 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.

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 (268A) and letter (268B) grading.

272A-272B. Colloquia: African History. (4–4) Seminar, two hours. Preparation: two hours of coursework and ongoing graduate research and continuing graduate students in African history. Source identification, research methodologies, historiographic traditions, historical interpretation, approaches to teaching, and critical discussion of dissertation prospectuses and work in progress. Each course may be taken independently for credit. S/U or letter grading.


287A-287B. Seminars: Chinese History. (4–4) Seminar, three hours. Course 287A is requisite to 287B. In Progress (287A) and letter (287B) grading.

289A-289B. Seminars: Southeast Asia. (4–4) Seminar, three 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. (2) Seminar, two hours. Preparation: two years of classical Chinese or working knowledge of classical Chinese. Readings in historiography and selected genres of historical documents. Letter grading.

292A-292B. Seminars: Western Science, Religion, and Political Economy, 1600 to 1830. (4–4) Seminar, three hours. Course 292A is requisite to 292B. In Progress (292A) and letter (292B) grading.

297A-297B. Seminars: History of Science. (4–4) Seminar, three hours. Course 297A is requisite to 297B. In Progress (297A) and letter (297B) grading.

298A-298B. Seminars: History of Science. (4–4) Seminar, three hours. Course 298A is requisite to 298B. In Progress (298A) and letter (298B) grading.

299. Interdisciplinary American Studies. (6) (Same as English M299.) Discussion, four hours. Readings, discussion, and papers on common theme, team-taught by faculty members from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit with consent of instructors. S/U or letter grading.

401. Writing Workshop for Graduate Students. (4) Three hours of tutorial writing workshop on students’ papers-in-progress. Analysis and group discussion of rhetorical and stylistic principles, included in students’ own and in professional historians’ work, help students improve their own writing. May be repeated once. S/U grading.

405. Teaching History Seminar. (4) Seminar, to be arranged. Designed for graduate students. Required of all new teaching assistants. Lectures, readings, discussions, 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.

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.

509. Directed Studies. (1 to 8) Limited to graduate students. Individual directed reading arranged with professor. MA candidates may take this course only once. Number of times MA candidates may take this course is subject to consent of graduate studies committee. S/U or letter grading.


599. PhD Research and Writing. (1 to 8) Preparation: advancement to PhD candidacy. S/U grading.
Overview

The Honors Collegium is a series of courses with an interdisciplinary emphasis designed for students enrolled in College Honors. It encourages animated discussion among students, as well between students and professors and seeks to promote scholarly exchange across the major disciplines at UCLA. And it offers small classes and individual attention.

Each Honors Collegium course is staffed by a director who is distinguished in teaching and scholarship and may include a variable number of guest lecturers and additional specialists in their fields. Some courses satisfy general education requirements and serve as preparation for numerous majors in the College of Letters and Science. Counselors are available in the Honors Programs Office, A311 Murphy Hall, to advise and help students plan an integrated academic program.

Courses in the Honors Collegium are mainly interdisciplinary seminars, and the courses vary each year. Refer to the Schedule of Classes for current course listings.

Honors Collegium

Lower-Division Courses

1. Plague Culture. (Seminar, three hours. Study of episodes and metaphors of plague in Western culture from ancient to age of AIDS. Topics include scripture, ancient tragedy, Black Death, realist novel, and aesthetic metaphors of plague. P/NP or letter grading.)

2. Comparative Genocide. (Seminar, 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. (Seminar, four hours. Designed for College Honors students. Available psychotherapists, 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 Western Literature. (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 infancy; despair and suicide; barbarism and repression; hatred and revenge; incest and shame; jealousy and paranoia; death and psychosis; sociopathy and evil. Elucidation of themes through texts, and discussion of each text in its historical and social context. Examination of pathological behavior 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. (Seminar, three hours. Examination of legendary queen of Egypt as seen by her contemporaries and study of origins of glory about her and ways in which subsequent cultures and eras have imagined her in literary, visual, and cinematic representations. P/NP or letter grading.

6. Energy Issues: Before and Now. (Seminar, three hours. Designed for College Honors students. Literature course with classics used to explore various aspects of human condition as they relate to health and illness. Broad themes including creation, death, deformity, madness, contagion, infirmity, and alienation to be drawn from texts spanning Shakespeare to Ptein. Concepts 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 pertaining to each theme and timely and controversial aspects of modern healthcare. P/NP or letter grading.

9. Visual Communication and Scientific Principles. (Seminar, four hours. Opportunity for collaboration between those in science-related disciplines and those in art/humanities-related disciplines. New ways in which science and art 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 design, 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. (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 from psychology, linguistics, and English, Russian, and Shakespearean literature 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. (Seminar, three hours. Enforced requisite: English Composition 3, 11, or 11H. Designed for College Honors students. Preparation for College Honors. Enforced requisite: English Composition 3, 11, or 11H. 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 infancy; despair and suicide; barbarism and repression; hatred and revenge; incest and shame; jealousy and paranoia; death and psychosis; sociopathy and evil. Elucidation of themes through texts, and discussion of each text in its historical and social context. Examination of pathological behavior 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.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (Seminar, three hours. Exploration from early religious poetry (prior to 1000 BC) to broad range of literary styles and diverse religious philosophies that emerged in India through classical, medieval, and premodern period. P/NP or letter grading.

13. Inquiry in Numbers. (Seminar, four hours. Preparation: high school algebra. Designed for College Honors students. Intellectual nonmathematicians to love mathematics and to see mathematics as mathematicians do, not as means to end, but as beautiful and fundamental intellectual framework, including elementary number theory and study of whole numbers, development of rich and elegant theory of prime numbers, factorization, and modular arithmetic. P/NP or letter grading.

14. Interaction of Science and Society. (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. (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. (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. (Seminar, three hours. Designed for College Honors students. Integrative examination of evolving impact of arts and entertainment industry on such various aspects of social change as environmental movements, politics and elections, economy, local politics, and community. P/NP or letter grading.

18. Trial of Socrates. (Seminar, three hours. Examination of life and trials 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, 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 History and Philosophy of Science. (Seminar, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 11H or English as Second Language 36. Study of early and middle 20th-century’s attempt to construct significance in a general climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

22. Comparative Odysseys. (Seminar, three hours. Designed for College Honors students. Greek and Chinese classics have in common two modes of heroism: one glorifying prowess and another celebrating mental cunning. Both modes are associated principally with men motivated by piety and honor. Interrogation of these traditions of heroic, particularly conflation of courage and violence. Readings include Writer as Migrant by Jin Ha, Odyssey by Homer, Journey to West by Anthony Yu, Tripmaster Monkey by Maxine Kingston, and Ignorance by Milan Kundera. P/NP or letter grading.

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Robert B. Goldberg, PhD (Molecular, Cell, and Developmental Biology)
Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Zrinka Stahuljak, PhD (Comparative Literature, European Languages and Transcultural Studies)
Christopher C. Tilly, PhD (Sociology, Urban Planning)
Aaron Tornell, PhD (Economics)
Aradhna K. Tripathi, PhD (Atmospheric and Oceanic Sciences; Earth, Planetary, and Space Sciences; Environment and Sustainability)
23. Political Dissidence Today and in Ancient Greece: Trial and Death of Socrates in Its Classical and Legal Context. (5) Seminar, three hours. Study of trial and death of Socrates by examining its relevance today to legal treatment of dissent and civil disobedience in the U.S. and to variety of contemporary theories and strategies of dissent. Introduction to Greek legal system, values that animated that system, and new ways to think about roles of law. P/N/P or letter grading.

24. We Could Be Heroes: Race, Gender, and the Contemporary Hero Narrative. (5) Seminar, four hours. Ways in which hero narratives represent and work through issues of racial and gender identity. Inclusion of graphic novel, blaxploitation films, hip-hop concept music, animated television series, and novel. Critical reading and analysis of these texts to question often-fraught racial and gender politics embedded in these cultural productions as way to access role that racial and gender dynamics have on world at large. P/N/P 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, and thus to listen and compensate 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 and how they relate to political thought and politics, from ancient to contemporary thinkers within philosophical framework. P/N/P or letter grading.

26. Representing Medicine: Art, Literature, and Film. (5) Seminar, four hours. Limited to Freshman Seminar Honors. Exploration of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of doctor/patient relations, illness, health issues, circumstances, aging, alternative treatments, and mental health. Offered in summer only. P/N/P or letter grading.

27. Varied Mathematics. (5) Seminar, four hours. Formal approach to mathematics and engineering topics. Ideas through stories from historical and anthropological sources. Simplification of topics that cause difficulties in traditional mathematics. Examples emphasize practical solutions. In place of terms used in mathematics, use intuitive and visual language. Exploration of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of doctor/patient relations, illness, health issues, circumstances, aging, alternative treatments, and mental health. Offered in summer only. P/N/P or letter grading.

28. Materia Culture and the Museum: Introduction to Collections-Based Research. (5) Seminar, three hours. Exploration between real people, objects, ideas. Exploring ways it was possible to make sense of things and their use and importance in daily life and in performance of cultural identity. Consideration of questions including how past and present intersect, how people have made sense of world over time and space, and how objects, heritage, collections, and museums converge, diverge, and intersect. P/N/P or letter grading.


30. Vietnam War and American Culture. (4) Seminar, three hours. Cultural, social, and political implications of the Vietnam War on American society through examination of photography, journalism, persisted, political commentary, drama, fiction. P/N/P or letter grading.

31. Poets and Prophet: 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 the time and 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 focused on the importance of human nature today: climate change and threat of ecological and planetary devastation; impact of artificial intelligence on human relationships; racism, exploitation and marginalization of the other; alienation and loneliness; theory and science of time travel, space exploration and colonization as means for human survival; medical technology in service of corporate interests. P/N/P or letter grading.

32. Scientific Method: Critical Inquiry into Question of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presume to answer question of whether or not there is intelligent life in the universe but considers as a pedagogical tool to introduce central ideas, techniques, and limitations of the scientific method—what questions would need to be asked, what scientific knowledge would be needed, and what obstacles would have to be overcome just to address this question. P/N/P or letter grading.

33. Global Geographies and Idea of Home. (5) Seminar, three hours. Designed for College Honors students. Home is potent symbolic notion across eras and cultures, locale from which we depart and to which we may return. Broader notions of home, as well as the examination of what home is through challenging works of theory surrounding notions of space, place, longing, belonging, exile, and return, and through lighter works of literary fiction, film, and performance. P/N/P or letter grading.

37. JW. Sampling and Remix: Aesthetics and Politics of Cultural Appropriation. (5) Seminar, three hours; laboratory, two hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes of songs, films, images, and other media texts. But this is only one moment within far-reaching genealogy of remix practices. In this course, writing about and with remixes of cultural production, we will address questions of ownership, identity, and power. P/N/P or letter grading.

38. Film and History/Film as History. (5) Seminar, four hours. Designed for College Honors students. How do films reflect on, and even constitute, historical events? Examination of relationship between film and history and some in which ways in which film has functioned as history. Tracing questions of film and history from sentient era to postfilm digital present, exposure to major issues in scholarly body of work in film and media studies while also exploring how that films can engage with history. P/N/P or letter grading.

39. Philosophy Ramble. (5) Seminar, three hours. Designed for College Honors students. Grounded in Aristotelian-style philosophy found in Martha Nussbaum’s Virtue’s Place and盖内·雷·卢西恩的 The Ethics of Power. Prompted by wide range of philosophical readings and employing Socratic method of asking questions, examination of place in our lives—especially our civic lives—of attention, memory, will, science, prudence, and assessment/creation of self. Like Aristotle’s peripatetic version of Plato’s Academy, class takes regular walks together, using UCLA and West Los Angeles as Lycueum. Knowledge is seen as the historical tradition of exercising both body and mind. P/N/P or letter grading.

40W. Transformations of Cultural Stories across Disciplines and Texts. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Tracing of writing and rewriting of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and its remanifestations in Coetzeet’s Foe and the fairy tale as represented by Cindrella and its various cross-cultural remanifestations. Satisfies Writing II requirement. Letter grading.

41. Understanding Ecology: Finding Interdisciplinary Solutions to Environmental Problems. (5) Seminar, four hours. Designed for College Honors students. Examination of ecological basis of planet’s most important environmental issues, such as global climate change, ocean acidification, biodiversity loss, deforestation, pollution, and declining freshwater resources and fisheries. Examination of both hard scientific and educational) to environmental problems. P/N/P or letter grading.

42. Poetry 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 inno- vation and oppression. Writing about and with poems about police violence, editing anthologies with creative works of incarcerated people, and teaching poetry in detention centers. Examination of how poets have struggled to make legitimate where it is otherwise unseen. In workshop component, students respond creatively to works discussed during seminars in order to better understand and confront one of largest social issues of our time. P/N/P or 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 texts that change way we think and have potential to affect social policy? Texts cover variety of topics from evolution to nutrition and food industry to current debates about climate change. Students engage in practical practice of writing about their own research, with an eye toward effectively communicate science to and influence large groups of people. 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 texts that change way we think and have potential to affect social policy? Texts cover variety of topics from evolution to nutrition and food industry to current debates about climate change. Students engage in practical practice of writing about their own research, with an eye toward effectively communicate science to and influence large groups of people. Letter grading.

44. Drugs in Society: Interdisciplinary Perspective. (5) Seminar, three hours. Examination of drug use and abuse and consequent social issues and policies both historically and in the contemporary U.S., including discussion of current research on neuroscience and the properties of different drugs and corresponding clinical interventions. P/N/P or letter grading.

45. Quality of Life: On Earth and Beyond. (5) Seminar, three hours. Designed for College Honors students. Grounded in Aristotle’s perfection of human beings, engaging in intellectual dialog in historical tradition of exercising both body and mind. P/N/P or letter grading.

46. Drugs in Society: Interdisciplinary Perspective. (5) Seminar, three hours. Examination of drug use and abuse and consequent social issues and policies both historically and in the contemporary U.S., including discussion of current research on neuroscience and the properties of different drugs and corresponding clinical interventions. P/N/P or letter grading.

48. Politics of Reproduction. (4) Seminar, three hours. Examination of complex relationships between individual desires and social forces to ask about reproductive policies, public policy, and exercise of power. P/N/P 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/N/P or letter grading.
50. Creating Your Roadmap. (5) Seminar, three hours. Introduction to selected signature approaches to learning (interdisciplinary, experiential, integrative, illusory), ways of being (inclusivity, self-awareness, curiosity), independence, resilience, generosity, distinctiveness, and habits of doing (collaboration, curiosity, independence, resilience, generosity, distinctiveness, and habits of doing). Incorporation of empirical research and writing from different academic disciplines to help students understand rationales behind those approaches and the implications of these approaches for undergraduate learning. Students design e-portfolios. Students develop personalized roadmap to guide their academic, personal, and professional growth during their undergraduate careers. May be repeated for 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. Analysis of Western art music, with focus primarily on music, but not exclusively, on music of late-18th through early-20th centuries through multiple analytical prisms: sociological, historical, political, and musical. P/NP or letter grading.

52. History and Culture of Utopias. (4) Seminar, three hours. Study of major utopian writings from Thomas More’s classical text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and utopian aspects underlying quest for a more perfect society. P/NP or letter grading.

53. Language, Performance, and Culture. (5) Lecture, three hours. Mixed series of lecture and discussion on topics of language and its relationship to performance and culture in the 20th century. Study of such figures as Sausse, Wittgenstein, Stanley Cavel, Judith Butler, and others, playwrights such as Wilde, Stein, and Samuel Beckett, and films such as His Girl Friday and Monkey Business. P/NP or letter grading.

54. Literature and Culture of the American South. (6) Seminar, four hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 4, former Microbiology 7, or Molecular, Cell, and Developmental Biology 70. Historical and scientific study of literature and culture of the American South. Satisfies Writing II requirement. Letter grading.

55. Nabokov and Reading Minds. (5) Seminar, four hours.Enforced requisite: English Composition 3 or 4, former Microbiology 7, or Molecular, Cell, and Developmental Biology 70. Historical and scientific study of literature and culture of the American South. Satisfies Writing II requirement. Letter grading.

64. Neuroscience and Psychology of Art and Biological Phenotypes. (5) Seminar, four hours; discussion, 90 minutes; writing laboratory, two hours. Introduction to selected signature approaches to the study of the biological and psychological phenomenon. P/NP or letter grading.

67. Science and Religion from Copernicus to Darwin. (5) Seminar, three hours. Are science and religion incompatible? It appears so, but struggles of scientists such as Darwin, Galileo, and Newton tell a far richer story. Sometimes supporting each other; sometimes in competition; and religion, were, and remain, in constant dialog. Letter grading.

68. Personal Financial Health: Theory and Practice. (4) Seminar, three hours; fieldwork, four hours. Enforced requisite: English Composition 3. Enforced requisite: English Composition 3. Designed for College Honors students. Examination of multiple encounters between Greeks and Persians in antiquity, from origins of Achaemenid Empire through its conflicts with Greek world of Mediterranean, to Alexander’s defeat of Darius III. Consideration of mutual constructs of each other in antiquity, Near Eastern versus Greek testimonia, and art and archaeological evidence of these two civilizations. P/NP or letter grading.

80. Cossacks and Narratives about Them. (5) Seminar, four hours. Designed for College Honors students. Special economic and psychological preparation not required. Theory and practice of managing financial health, allowing for broad discussion of larger theoretical picture. By examining research, case study work, or hands-on look at personal finance, including budgeting, debt, insurance, investing, and purchasing. Examination of financial issues through multiple encounters between Greeks and Persians in antiquity, from origins of Achaemenid Empire through its conflicts with Greek world of Mediterranean, to Alexander’s defeat of Darius III. Consideration of mutual constructs of each other in antiquity, Near Eastern versus Greek testimonia, and art and archaeological evidence of these two civilizations. P/NP or letter grading.

85. Biological Clock. (5) Seminar, four hours. Enforced requisite: English Composition 3. Designed for College Honors students. Examination of multiple encounters between Greeks and Persians in antiquity, from origins of Achaemenid Empire through its conflicts with Greek world of Mediterranean, to Alexander’s defeat of Darius III. Consideration of mutual constructs of each other in antiquity, Near Eastern versus Greek testimonia, and art and archaeological evidence of these two civilizations. P/NP or 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 that reflect social norms still respected in most parts of world, objections arise. Where is line between free speech and free artistic expression and social responsibility? How can Hollywood become more globally responsible given its business realities and lack of government oversight? Study of different case studies affecting different countries and cultures to illuminate discourse on ethics and art. 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 or letter grading.

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 practice.
104. Fundamental Forms of Social Relationships from Theory to Research Design. (5) Seminar, three hours. Relational models theory posits that four elementary models organize social coordination, emotions, motives, and norms in virtually all domains and cultures. Study and development of research questions, planning of study, design of its methodology, and writing of research proposal. P/NP or letter grading.

105. Racism and Ethnic Disparities in Healthcare. (5) Seminar, three hours. Examination of ways in which race and ethnicity impact delivery of healthcare in U.S. and discussion of policies and proposals to address disparities in healthcare and diversity in healthcare professionals. P/NP or letter grading.

M106. Imaginary Women. (5) Same as Gender Studies M106.) Seminar, four hours. Designed for junior/senior College Honors students. Study of four female cultural archetypes—abandoning 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.

107. Literature and Political Order: Homer, Shakespeare, Dostoevsky. (5) Seminar, three hours. Designed for College Honors students. Examination of political order and questions of violence, power, leadership, and conflicts in literatures of literary texts, specifically Iliad by Homer, Julius Caesar and Henry IV, Part 1 by Shakespeare, and Brothers Karamazov by Dostoevsky. P/NP or letter grading.

108. Ancient Rome and the Monuments of Washington, D.C. (5) Seminar, three hours. Exploration of public buildings, marmoreal 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 monument counterparts, Washington Monument, Lincoln Memorial, and Jefferson Memorial. Examination of ancient inspirations for architectural plants and how to use computers and modeling technologies in process of design to research process in digital age, offering opportunities for students to take lead in suggesting how to use computers and modeling technologies in process of design. P/NP or letter grading.

109. Living Conceptually: Philosophy in Everyday Life. (5) Seminar, three hours. What do you make and actions you take say about who you are? What do you see yourself as aspiring to be? In this course, you will explore ways in which you construct your own daily life as it is unfolding before you—your everyday life with your own mindfully developed way of seeing world? Through readings, discussions, exercises, and writing, exploration of practice and ensuing results of living consciously. Students develop and articulate their personal philosophical through intensively and personally exploring various ways of thinking about and acting in world, and through exploring how social world influences and creates philosophies by which we live (whether we know it or not). Letter grading.

110. Marxist and Post-Marxist Approaches to Cultural Studies. (5) Seminar, four hours. Examination of Marxist and post-Marxist approaches to cultural studies, including classic texts, theoretical and empirical works, and the Marxist roots of postmodernism. P/NP or letter grading.

111. Stress and Coping. (4) Seminar, four hours. Examination of research and theory on stress and coping, with emphasis on physical and mental consequences of stress and moderators of both social support and personality in coping strategies. P/NP or letter grading.

112. Interconnected World: Society and Internet. (5) Seminar, three hours. Designed for College Honors students. Exploration of social, political, economic, psychological, and cultural dimensions of our hyper-connected world via Internet. Topics include transformation of social relationships online, virtual versus real communities, identity and its creations, trust and deception, politics and social media, surveillance and privacy, technological, intellectual property, culture, education, and knowledge, and digital wellness. P/NP or letter grading.

114. Architecture from Los Angeles: Work of Frank Gehry, Thom Mayne, and Greg Lynn. (5) Seminar, three hours. Within last 30 years, body of architectural work originating in Los Angeles but reaching world both in material construction and aesthetic influence has emerged. Study of works of three seminal architects—Frank Gehry, Thom Mayne, and Greg Lynn. Students and hands-on project focusing on architect’s body of work and various recent projects, not only in Los Angeles, but also in Japan, Europe, and China. P/NP or letter grading.

115. Poetry and Society in England, 1558 to 1688: Verse, Politics, Religion, and Sexuality from Spanish Armada to Glorious Revolution. (5) Seminar, three hours. Designed for College Honors students. Poetry of England in between 1558 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 widely on range of subjects from alchemy to zoology and become class resource on some relevant topic such as Renaissance medicine, Calvinism, scholasticism, and New Model Army’s influence on 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 male homosexual subculture that thrived in London during period when brilliant Irish writer Oscar Wilde (1854 to 1900) was sent to jail for committing acts of gross indecency. Study of Wilde trials, cultural consequences of Labouchere Amendment criminalizing male homosexual acts, some of Wilde’s writings, and exciting new writings that have come to light offering insight into gay men in 19th century. 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 discrimination. It is surprising to see recent media coverage that turns magnifying glass around and exposes Hollywood’s own severe problems when it comes to racial and cultural diversity. Exploration of differing media representations—how they occur, why they persist, and what they can teach about current racial divides in America. Examination of how Hollywood represents different cultures, races, and groups. P/NP or letter grading.

M120. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Theater M120.) Lecture, four hours; discussion, one hour. Drawing from observations in five major exhibitions 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. (S) Lecture, three hours; discussion, one hour. Examination of different ways human beings have developed conceptions of themselves through history from early civilizations through Middle Ages, Renaissance, Reformation, and Enlightenment, origins of modern world, Freud’s fin de siècle Vienna, 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. (S) Seminar, three hours; discussion, two hours. Designed for College Honors students. Chemical communication governs relationships among most biological entities on Earth. (Formerly numbered M122) Seminar, three hours. Limited to juniors/seniors; application required. Study of history, philosophy, and practice of chemical communication. Practical experience in setting priorities and making decisions. Enrollments in Los Angeles-based nonprofit organizations. Letter grading.

124. Midwives, Mothers, and Medicine: Perspectives on History of Childbirth. (S) Seminar, three hours. Using examples from history and anthropology, examination of how childbirth and birth attendant roles have evolved from ancient times. Study of childbirth practices across cultures, birth stories and birth journeys, birth attendant roles in different cultures, and the roles of birth attendant training on childbearing outcomes. P/NP or letter grading.

125. Communities and Nations in Conflict: Theory and Practice of International Conflict Resolution. (L) Lecture, three hours; discussion, one hour. Introduction to theory and practice of conflict resolution, with emphasis on international conflict. Transitional justice mechanisms, from international criminal tribunals, special courts, and International Criminal Court to indigenous approaches such as community justice systems. Examination of environmental 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. (S) Seminar, three hours. Designed for College Honors students. Examination of historical and contemporary moments of resistance and social justice movements in Asia and Pacific Islands. Global forces such as capital, colonialism, and globalization played significant role in cultural, economic, and political organization of 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 connected these distant and diverse areas and peoples. P/NP or letter grading.

127. Citizenship, Leadership, and Service. (S) Seminar, three hours; fieldwork, three hours. Interactive participatory study of intersections between citizenship, leadership, and service, including both theoretical and practical work in classroom and practical work in service organizations in the field. P/NP or letter grading.

128. History and Social Control. (S) Seminar, four hours. Designed for College Honors students. Application of venerable humanist insights and social scientific thinking to contemporary social phenomena. Theorizing of human nature and human behavior. C. S. Lewis and C. S. Peirce thought human nature was bad, whereas Locke and Bahktin would have disputed them for different reasons. Integration of their ideas and ideas of evaluation and the social sciences. Theorizations and changes in that culture, and lives of authors, these works helped negotiate. How and why metaphysical and cavalier modes emerge in period of intense struggle, interplay of form, content, and meaning within these modes. Evidence offered about personal psychology, gender politics, and status competition of this period and its poets, especially Donne, Herbert, Jonson, Carew, and Marvell. What kind of work were they doing here, and what was going on? P/NP or letter grading.

129. Research in Psychology and Legacy of John Wooden. (S) Seminar, four hours. Designed for College Honors students. Exploration of life and work of Coach John Wooden, with particular attention to his pyramid of success, how he was viewed and is remembered by his players, and relationship between his philosophy and academic research. His philosophical approach as lens through which to explore research in fields of sport and education psychology. Consideration of socially transformative aspects of Wooden’s pyramid of success (and other aspects of his coaching philosophy) to research in psychology. P/NP or letter grading.

130. Speeding the Cure: Activists, Experts, and Health Care. (S) Seminar, four hours. Study of how activists, experts, and political movements shape public-health policy and biomedical science. What are best ways to confront health challenges, from rare diseases to pandemics? Analysis of scientific, medical, social, economic, and political aspects of health inequities, drug pricing, disability policy, as well as the role of scientific expertise in formulating goals and strategies. Women across cultures and national borders, aging, autism, AIDS, breast cancer, clean water, gun violence, and prostate cancer. P/NP or letter grading.

131. Global Dimensions of Education and Inequality. (S) Seminar, four hours. Examination of how various historical and regional developments have shaped educational systems 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 educational systems in those regions. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture are connected to practices and performance of schools. P/NP or letter grading.

132. New Women and Activism from America to Asia. (S) Seminar, three hours. Designed for College Honors students. Spanning of academic disciplines and regional boundaries, this seminar examines 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 educational systems in those regions. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture are connected to practices and performance of schools. P/NP or letter grading.

133. Modernist and Avant-Garde Poetry and Society in England, 1588 to 1688. (S) Seminar, four hours. Reading and discussion of poems to comprehend meaning and place in configuration of ideas about power, society, politics, religion, and culture. Tensions and changes in that culture, and lives of authors, these works helped negotiate. How and why metaphysical and cavalier modes emerge in period of intense
144. International Development: Using Your Major For Doing Well and Doing Good. (5) Seminar, three hours. The adoption of the United Nations’ Sustainable Development Goals (2015) called for addressing extreme poverty, disease, environmental degradation, gender inequality, 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 sustainability. Students address questions such as: How does your major relate to one or more of the goals? P/N or letter grading.


146. Imaging Global Climate Change. (5) Seminar, three hours. Designed for College Honors students. Global and comparative study of regions in front line of climate change. Study of coherence between local and global issues 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 activities to examine of climate change in its complex cultural imaginaries. P/N or letter grading.

147. The Anthropocene: An Anthropological Perspective. (5) Seminar, four hours. Examination of new geological time period labeled the Anthropocene, in which environment is profoundly impacted by human activities. Evidence that anthropogenic forces 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.

150. Solo Performer’s Toolbox: Storytelling for Art and Trauma. (5) Seminar, three hours. Examination of how slavery, war, psychiatric institutionalization, and child sexual abuse shaped individual artistic visions. Depictions of severe trauma can be experienced in several forms (e.g., war, personal psychological process (e.g., depression), or symbolic unfolding (e.g., disintegration of individual). Manner in which trauma is embedded in brain and stored in memory begins early in life. Exploration of research on memory and trauma, post-traumatic stress disorder (PTSD), and how severe trauma impacts brain. Student component in form of individual and group projects to offer more tangible insight into process of art and trauma. P/N or letter grading.

155. Disease and Human Condition. (3) Seminar, four hours. Discussion and analysis of COVID-19. Exploration of scientific characteristics and historical manifestations of diseases that have shaped civilization: bubonic plague, smallpox, yellow fever, tuberculosis, cholera, influenza, polio, hemorrhagic fever, and AIDS. Examination of biomedical characteristics of disease: causative agent or process; pathological effects in human body; course of disease; and epidemiological patterns of incidence and severity. Focus on each case during the period when it emerged, its characteristics, and global impact. Emphasis on how historical manifestations of, and reactions to disease, are deeply embedded in social and economic structures, and medical knowledge, of its time. P/N or letter grading.

156. Political Opposition in Early Modern Europe. (5) Seminar, three hours. Designed for College Honors students. Examination of tradition of radical political movements in the context of French Revolution. Topics include Machiavelli’s contributions to political thought, tumult of 16th-century France and Dutch Republic and their radical underside of Protestant thought, French Wars of Religion, Dutch revolt against Spanish, English Civil Wars, and radical thought of European Enlightenment and its contributions to French Revolution. P/N or letter grading.

157. International Relations of Middle East. (4) (Same as History M128.) Seminar, four hours; discussion, one hour (when scheduled). 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.


159. Feminism, Art, and Metaphors of Trauma. (5) Seminar, three hours. Exploration into visual metaphors of extreme trauma, across several centuries, of artworks of feminist artists who have been exposed to, or ally with, relentless traumas; sexual violence, casualties of war, racial and social injustice, and trafficking of women and girls. Focus on visual manifestations of anguish, persistence, and refiguring that populate and coalesce in these artworks. 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.

160. Asceticism. (5) Seminar, three hours. Designed for College Honors students. Review of liturgical, philosophical, and theological writings on asceticism, with particular attention to late antiquity and medieval periods. Study of asceticism from desert father Sa`id ibn Al-Jawa`b to medieval female mystics such as Protes- tantism, Nietzsche on ascetic ideal, and Foucault on ancient askesis, Literary readings include selections from Flaubert, Melville, Kafka, Eliot, and Whit. P/N or letter grading.

162. China’s Rise: Critical Issues and Global Implications. (5) Seminar, four hours. Study of ascendency of China in 21st century, with emphasis on global im- portant aspects of Chinese development that lend themselves to comparative analysis, including labor, environment, nationalism, migration, inequality, rule of law, social movements and authoritarianism, state capitalism, and China in Africa. P/N or letter grading.

163. Between Species: Human/Non-Human Animal Relationship. (5) Seminar, three hours. Exploration of intimate and changing relationship between human and non-human animals. Examination of how we con- struct animals: as commodities, assti, representatives of self, and more; rights—or lack thereof—of our animals; our animal industries: factory farming, shelters and rescues, animal workers, enter- tainment, fashion, and research, and non-human animals: violence against animals, both indi- vidualized and institutionalized; animals as concept, and social construction of the difference between human and non-human animals. Letter grading.


166. Studies of Cultural Distance and Proposed As- similation. (5) Seminar, three hours. Study helps dis- cern how (auto)biographical and fictional stories re- presented personal identity. Focus on cultural dif- ference. Focus on narratives presenting ethnic conflict and assimilation in Caucasia and eastern Ana- tolia, beginning in 1850s and ending with aftermath of Armenian genocide. P/N or letter grading.

167. Modern Metropolis: Cultural Histories of Los Angeles. (5) Seminar, three hours. Interdisciplinary approaches to study of Los Angeles and its rise as global metropolis. Focus on art, architecture, litera- ture, and other forms of cultural expression rooted in diverse communities of Los Angeles. P/N or letter grading.

168. Paris: Biography of City from 1715 to World War II. (5) Seminar, three hours. Designed for College Honors students. Exploration of history of Paris from death of Louis XIV to World War II. Study of conse- quences of rapid urbanization and reasons why Paris became focal for modern revolutions. Examination of Paris as focus of modernism, its rebuilding and de- sign under Baron George Haussmann, impact of World War I and expat culture, and city’s housing crisis. P/N or letter grading.

169. Impotence and National Identity. (5) Seminar, three hours. Cross-cultural approach to study of im- posture (assumption of false identity) as window through which to examine cultural modernity and na- tional identity. Study of literature, history, and film from Australia, United Kingdom, the U.S., Near East, and South Asia as way of trying to define both hypocrisies and creativity of imposture. P/N or letter grading.

London between 1870 and 1895 to understand ways in which institutions create frameworks for understanding dissident sexualities and gender identities, and relations between sexual scandals and legal actions. Sodomy trial of Ernest Boulton and Frederick Park. Examination of 1861 Act of Parliament and 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 of several (of whom were sex- workers) were mutilated and disemboweled, attributed to Jack the Ripper. Trials of Oor Wulfrun among other attendees. Sheed exposed one to jail for two years in solitary confinement with hard labor for gross indecency. P/N or letter grading.

152. Past People and Their Lessons for Our Own Future. (5) (Same as Anthropology M148 and Geog- raphy M142.) Seminar, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of whether modern people are coping or failing to cope with similar issues. Letter grading.

176B. Reading Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176A. Introduction to some of the most salient literature in contemporary Arab world, with focus on Cairo and Alexandria. Offered in summer under contract and cooperation. P/NP or letter grading.

177. Biotechnology and Art. (5) Seminar, six hours. Bioartists use cells, DNA molecules, proteins, and living tissues to bring to life ethical, social, and aesthetic issues of sciences. Study of how bioart blurs distinctions between science and art through combination of artistic and scientific processes, creating wide public debate. Exploration of history of biotechnology as well as social implications of this science. P/NP or letter grading.

178. Secret Coups, Imperial Wars, and American Democracy since World War II. (5) Seminar, three hours. Study of U.S. involvement, both covert and overt, in expeditionary wars since World War II, including involvement in Vietnam, Korea, Cuba, Iran, Guatemala, Nicaragua, and Chile, and implication of these actions for vitality of American democracy. P/NP or letter grading.

M179. Critical Vision: History of Art as Social and Political Commentary. (5) Same as Communication M169B. Seminar, three hours. Study of tradition of visual arts (painting, graphic art, photography, sculpture), and its role as social and political commentary. P/NP or letter grading.

M180. 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 lattice), and physics (crystal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

182. From Scientific Revolution to Industrial Revolution. (5) Seminar, four hours. Designed for College Honors students. Examination of most important development in making of Western power and hegemony: rise of new science and its relationship first to British, then European, Industrial Revolution. Once seen as solely product of material factors such as abundant coal, high wages, and available labor, Industrial Revolution is shown as also possessing critically important knowledge of components, one scientific culture derived from Newtonian science and mechanisms. P/NP or letter grading.

M183. Being Human: Identity and Mental Illness. (5) Same as Disability Studies M183 and Society and Culture M183. Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diversity. Enduring philosophical questions regarding personal identity, consciousness, selfhood and mind-body relationship are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

M184. Indian and Pakistani: Historic Roots of Conflict and Prospects for Cooperation. (5) Seminar, three hours. Designed for College Honors students. History of India and Pakistan from demise of British India’s empire to partition of Punjab and Bengal and bifurcated Pakistan, to current state of both nations and their potential for conflict and cooperation. P/NP or 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 design course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189H. 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.

199. Directed Honors Studies. (4) Tutorial, two hours. Preparation: minimum of 4 units completed in Honors Collegium 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 Collegium course to pursue in greater depth significant topics from one collegium course. May be repeated for credit. P/NP or letter grading.
Faculty Roster

Professors
Daniel J. Benjamin, PhD
Paul C. Boutros, PhD
Manish J. Butte, PhD
Esteban C. Dell’Angelica, PhD
Eleazar Eskin, PhD
Jonathan F. Flint, MD, in Residence
Nelson B. Freimer, MD, in Residence
Daniel H. Geschwind, MD, PhD, in Residence
Michael B. Gorin, MD, PhD (Harold and Pauline Price Professor of Ophthalmology)
Wayne W. Grody, MD, PhD
Eran Halperin, PhD
Stefan Horvath, PhD
Deborah Krakow, MD
Leonid Kruglyak, PhD
Kenneth L. Lange, PhD (Maxine and Eugene Rosenfeld Endowed Professor of Computational Genetics)
Aldons J. Lusis, PhD
Stanley F. Nelson, MD, in Residence
Roel A. Ophoff, PhD, in Residence
Paivi E. Pajukanta, MD, PhD
Christina G.S. Palmer, PhD, in Residence
Matteo Pellegrini, PhD
Joseph R. Pisegna, MD, in Residence
Karen Reue, PhD
Jerome I. Rotter, MD, PhD, in Residence
Janet S. Sinzheimer, PhD
Marc A. Suchard, MD, PhD
Stephen G. Young, MD

Professors Emeriti
Rita M. Cantor, PhD
Stephen D. Cederbaum, MD
Guoping Fan, PhD
Richard A. Gatti, MD (Rebecca Smith
Professor Emeritus of A-T Research)

Associate Professors
Brent L. Fogel, MD, PhD, in Residence
Jingyi Jessica Li, PhD
Kirk E. Lohmueller, PhD
Julian A. Martinez-Agosto, MD, PhD
Bogdan Pasaniuc, PhD
Noah A. Zaitlen, PhD

Assistant Professors
Valerie A. Arboleda, MD, PhD, in Residence
Michael J. Gandal, PhD, in Residence
Nandita R. Garud, PhD
Chongyang Luo, PhD
Loes M. Olde Lohuis, PhD, in Residence
Harold J. Pimentel, PhD
Sriram Sankararaman, PhD
Michael F. Wells, PhD
Yi Yin, PhD

Adjunct Professors
Jeanette C. Papp, PhD
Eric M. Sobel, PhD

Adjunct Assistant Professor
Rebecca L. LeShay, MS, CGC

Overview
The goal of the graduate program is to train the next generation of leaders in human genetics.

This broad and rapidly evolving field of research incorporates multiple areas of modern experimental biology (including but not limited to molecular and behavioral genetics, epigenetics, biochemistry, cell and developmental biology, imaging, and large-scale omics approaches such as genomics, transcriptomics, and functional genomics) and of computational biology (including bioinformatics and biostatistics). In their research, students tackle Mendelian diseases and genetically complex traits of key relevance to human health.

A wide variety of courses is offered to equip future independent researchers with fundamental knowledge about state-of-the-art methods for generating experimental data on a genome-wide scale and computational and statistical approaches to draw from the data sound conclusions of biological and medical significance. In addition, courses on medical and ethical issues provide students with a societal perspective on human genetics.

Graduate students are expected to demonstrate integrity, creativity, critical thinking, perseverance, motivation, and determination to work hard; effective and appropriate oral and written communication skills needed for scientific presentation of the data including content, organization, logical flow, grammar, vocabulary, and proper citations; and the ability to design, revise, create, and implement experimental protocols and computational programs. They learn topics including transfer of biological information in a living organism, how genotype affects phenotype (subsuming environment), genetic variation in population, principles of research in genetics and genomics; and themes including evolution of thought in genetics and genomics history, how genetic informs disease and vice versa, genomics and integrating current tools in genomics research (statistical analysis, big data, and bioinformatics), and analysis in genetics and genomics.

The PhD is also offered with the MD as an articulated degree program.

Graduate Majors

Genetic Counseling MS

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.

Human Genetics MS, PhD

The program offers the MS and PhD degrees; graduate study leading to a PhD degree is emphasized. Under special circumstances, and only after consultation with and approval by the Department of Human Genetics, individuals may apply for admission to the MS program.

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

- Human Genetics PhD/Doctor of Medicine

Human Genetics

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
CM113. Ethical, Legal, and Societal Topics in Genetic Counseling. (2) (Same as Society and Genetics M113.) Lecture, two hours. Discussion of social, cultural, ethical, and legal issues in genetics and genetic counseling. Concurrently scheduled with course C413. Letter grading.
CM124. Machine Learning Applications in Genetics. (4) (Same as Computer Science CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Requires: Computer Science 35 or Programming 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 CM224. Letter grading.
CM136C. Societal and Medical Issues in Human Genetics. (6) (Same as Society and Genetics M136C.) 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 genes, 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 cases. Discussion of role of whole genome sequencing in clinical setting. Human Genome Project influence on medicine and on our concepts of self and identity. Concurrently scheduled with course C236C. Letter grading.
G203. Stochastic Models in Biology. (4) Lecture, four 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 C244. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation for presentations. Individual study in regularly scheduled meetings with faculty mentor required. May not be repeated. Letter grading.


189C. 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 and/or statutory faculty to coordinate research project under instructor supervision. P/NP or letter grading.

Graduate Courses

M203. Stochastic Models in Biology. (4) (Same as Biomathematics M203.) Lecture, four hours. Requisite: Mathematics 115A, 131A, Statistics 100B. Designed for engineering students as well as students from biological sciences and medical school. Biology has become data-intensive science. Robust statistical methods are essential to analyze large datasets. This course introduces students to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets arise from genomic, proteomic, and medical imaging. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biomathematics M229S and Computer Science M229S.) Lecture, four hours; outside study, two hours. Offered with consent of instructor. Introduction to specific topics in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genomics analysis, association analysis, association study design, isolated and admixed populations, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. May be repeated for credit with topic change. Letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M225 and Computer Science CM260A, and Computer Science CM225.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 and 101T. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, association analysis, association study design, isolated and admixed populations, population substructure, human structural variation, model organisms, and computational bioinformatics and genomics technologies. Computational techniques and methods include those from statistics and computer science. Letter grading.

282. Topics on Scientific Careers. (2) Lecture, two hours. Limited to graduate students. Covers topics related to scientific careers such as scientific writing and presentation (including to non-scientific audiences), grant writing and reviewing, curricula vitae, hiring processes, social media usage, academic and career development, and achieving work-life balance. Exploration of strategies to maintain balance between industry, government, teaching/collegiate, and research/collegiate careers. Active participation in oral or written presentations required. S/U grading.

400A. Principles and Practices in Medical Genetics 1. (3) Lecture, three hours. Limited to Genetic Counseling students, and open to other graduate and professional students. Corequisite: Genetics M202A and/or Molecular and Medical Genetics M255. Lecture grading.

Human Genetics / 549

400B. Principles and Practices in Medical Genetics 2, 3 (Lecture, three hours. Limited to Genetic Counseling students, and open to medical genetics, molecular and cytogenetics fellows with permission. Second course in a series. Focus on medical genetics approaches to clinical genetics. Topics include cancer genetics, principles of mathematical and population genetics, multifactorial inheritance, risk assessment, teratology and dysmorphology. Addresses application of medical and genetic information to genetic counseling. Includes lectures, problem-based learning scenarios, examinations, and written reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.

400C. Principles and Practices in Medical Genetics 3, 3 (Lecture, three hours. Limited to Genetic Counseling students, and open to medical genetics, molecular and cytogenetics fellows with permission. Third course in three-course series. Focus on medical approaches to clinical genetics. Topics include overview of various pediatrics, adult-onset and biochemical genetic disorders, referral issues, and current management and treatment of genetic disorders. Applications address medical genetics and genetic information to genetic counseling. Includes lectures, problem-based learning scenarios, examinations, and written reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.

401. Fundamental Genetic Counseling Skills. 4 (Lecture, four hours. Limited to Genetic Counseling students. Focus on introduction to profession of genetic counseling. Addresses fundamental genetic counseling skills and structure of genetic counseling session using didactic and active learning techniques, including role-plays, supplemented by activities in clinical settings. Topics include history of profession, theories of psychosocial counseling and its principles including reciprocal-engagement model of genetic counseling, active listening, verbal and non-verbal communication, empathy, how to ask questions, self-disclosure and self-involved skills, and structure of genetic counseling session. Practical exercises and supervised practice includes constructing genetic counseling session, contracting, obtaining family history, drawing and interpreting pedigrees, interviewing techniques, assessing level of patient and family understanding, screening, consultation, development of educational materials, and referrals. General Genetics Case Conference attendance and clinic observations are required component. Letter grading.

402. Reproductive Genetics in Practice. 4 (Lecture, four hours. Limited to Genetic Counseling students. Focus on reproductive genetic counseling. Reproductive topics include prenatal screening and prenatal diagnosis, invasive and non-invasive procedures, teratogens, ultrasound findings, carrier screening, infertility assessment, preimplantation genetic diagnosis, and in vitro fertilization. Active options in didactic exercises include case preparation, medical and family history analysis, risk assessment and counseling, differential diagnosis and diagnostic testing scenarios. Practical exercises include analytic valid, clinical validity, and clinical utility of screening and diagnostic tests, results interpretation, patient education, and psychosocial counseling specific to perinatal setting. General Genetics Case Conference attendance and clinic observations are required component. Letter grading.

403. Specialty Genetics in Practice. 4 (Lecture, four hours. Limited to Genetic Counseling students. Focus on specialty genetics including cancer genetics, cardiology genetics, and neurogenetics. Exploration of aspects of these disciplines in context of genetic counseling. Discussion of impact of our growing knowledge of both common and rare genomic etiology on risk assessment, clinical management, and genetic counseling. Practical exercises include case preparation, medical and family history analysis, risk assessment and counseling, differential diagnosis and diagnostic testing scenarios. Practical exercises include analytic valid, clinical validity, and clinical utility of screening and diagnostic tests, results interpretation, patient education, and psychosocial counseling specific to perinatal setting. General Genetics Case Conference attendance and clinic observations are required component. Letter grading.

550 / Human Genetics

411. Foundations in Genetic Counseling Research. 2 (Lecture, two hours. Limited to Genetic Counseling students. First of two-course series. Overview of research process, including literature review, research design, measurement methods, qualitative methods, and qualitative data analysis. Includes theory and elements of statistical analysis, data coding, data analysis tools, and interpretation of statistical results. Introduction to necessary tools to understand published research. Topics: foundations necessary for design, conduct, and interpretation of their capstone project. How to conduct human subjects research. Focus on specific aspects of study design and sampling, elements of developing and using instruments to measure variables of interest, criteria for systematic literature review, appropriate univariate and multivariate statistical analyses, and interpretation and report writing. Focus on skills students need to develop and conduct their capstone projects and research in genetic counseling. Students brainstorm ideas for their capstone project, develop research questions and submit research proposal for final project. Letter grading.

413. Ethical, Legal, and Societal Topics in Genetic Counseling. 2 (Formerly numbered 413) Lecture, two hours. Limited to Genetic Counseling students. Focus on issues in genetics and genetic counseling. Responsibilities for professional development after graduate training as genetic counselor, and open to medical genetics, molecular and biochemical geneticists. S/U grading.

414. Genetic Counseling Communication Seminar. 4 (Seminar, one hour. Limited to Genetic Counseling students. Topics in communicating genetic counseling-related subject matter to diverse audiences using various communication modalities, with emphasis on crafting presentations for health care, public, and advocacy audiences. Includes critical reading, review, and discussion of literature in context of medical genetics, health care delivery, medical management, genetic counseling, and genetics laboratory testing. S/U grading.

430. Clinical Applications of Cytogenetics and Molecular Techniques. 1 (Lecture, one hour. Focus on human genetic disorders and phenotypes seen in human genetic disorders, phenotypic consequences associated with these abnormalities seen in human genetic disorders, phenotypic consequences associated with these abnormalities seen in human genetic disorders. Includes examples from relevant areas to help develop individualized plans for counseling professionals after graduation. Includes lectures, discussion, interactive activities, projects, and oral presentations. Letter grading.

431A. Fieldwork. 1 (Clinical, one hour. Limited to Genetic Counseling students. Focus on clinical experiences with direct patient contact in different clinical settings. Students are supervised by certified genetic counselors and medical geneticists. 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 of professional relationships and supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.

431B. Fieldwork. 3 (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 of professional relationships and supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.

431C. Fieldwork. 15 to 20 hours; discussion, one hour. 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.

ducting genetic counseling session from beginning to end. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.

431E. Fieldwork. (5) Clinical, 15 to 20 hours; discussion, one hour. Enforced requisite: course 431D. Limited to Genetic Counseling students. Students utilize progressive genetic counseling skills with direct patient contact in relevant 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.

596. Directed Individual Study and Research. (2 to 12) Tutorial, to be arranged. Individual study or research for graduate students. 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. Individual study for MS comprehensive examination or PhD qualifying examinations. May be repeated for credit. S/U grading.

598. MS Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. Preparation of research data and writing of MS thesis. May be repeated for credit. S/U grading.


Graduate Major

Indo-European Studies MA, CPhil, PhD

Requirements

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


M70. Language and Evolution. (5) 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.

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 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 upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, 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

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 decimation 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 (when scheduled). 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 appreciation 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 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 reading,
ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. P/NP or letter grading.

**Graduate Courses**


M238. Analyzing Historical Texts. (4) Same as History M238C and Linguistics M238C. Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnohistorical context of legal and other documents written by native-speaking scribes and translators. Topics include paleographic technique and text analysis software. May be repeated for credit. S/U grading.

250A-250B. European Archaeology. (4–4) Seminar, three hours. Studies in ancient European archaeological materials and their relationship to Near East, Western Siberia, and Central Asia. May be repeated for credit. In Progress (250A) and S/U or letter (250B) grading.

C250. 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. 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.


597. Preparation for PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


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**INFORMATION STUDIES**

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Information Studies
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Department e-mail

Michelle L. Caswell, PhD, Chair

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**Professors**

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Jonathan Furner, PhD
Anne J. Gilliland-Swetland, PhD
Kimberley Gomez, PhD
Louis M. Gomez, PhD
Christopher M. Kelty, PhD
Leah A. Lievrouw, PhD
Safiya U. Noble, PhD
Ellen J. Pearlstein, MA
Ramesh 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**

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Michelle L. Caswell, PhD
Gregory H. Leazer, DLS
Sarah T. Roberts, PhD
Shawn G. VanCour, PhD

**Assistant Professors**

Robert D. Montoya, PhD
Miriam Posner, PhD

**Lecturers**

Kathy M. Carbonne, PhD
Melissa G. Elliott, MLIS
Dino Everett, MA
Joanna Fabricon, MLIS
Mahnaz Ghaznavi, MLIS
Melissa A. Gill, MLIS

Julia (Uiia) O. Gosart, PhD
Esther S. Grassian, MLS
Candice A. Mack, MLIS
Luiz H. Mendes, MLIS
Linda K. Tadic, MLIS
Jillian C. Wallis, PhD

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**Overview**

The Department of Information Studies has one of the top-ranked programs of its kind in the country and has developed an international reputation in the areas of information policy, information-seeking behavior, user interface development, archives, preservation, and cataloging. Whether students choose to pursue a master’s degree or a doctorate degree, they graduate with a broad understanding of both theory and practice.

For information about the Information Studies department and programs, see the department website.

**Career Prospects**

Students with Master of Library and Information Science (MLIS) degrees go on to careers as librarians, archivists, and information professionals in a variety of organizational settings. The Doctor of Philosophy (PhD) focuses on the preparation of scholars in the field.

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**Undergraduate Minor**

**Information and Media Literacy Minor**

The Information and Media Literacy minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic, focused, and critical introduction to information and media literacies. The core courses together with electives provide students with an understanding of the processes, dynamics, and societal implications of the production and dissemination of information and media and skills for their judicious evaluation, consumption, and productive use.

**Admission**

To enter the minor, students must have a cumulative grade-point average of 2.0 or better, submit a short application stating their interest in the minor, and have completed the two required lower-division information studies courses with a grade of B or better. Applications are available on the minor website.

**The Minor**

**Required Lower-Division Core Courses (10 units)**: Two courses selected from Information Studies 10, 20, 30.

**Required Upper-Division Core Courses (8 units)**: Information Studies C115, M121 (or Education M121).

**Upper-Division Elective Courses (12-15 units)**: Three courses selected from Education 105C,


**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 a cumulative grade-point average of 2.5 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Majors**

**Information Studies PhD**

**Requirements**
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 Library and Information Science**

**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 add a second degree while completing their first degree. Concurrent degree 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.

**Information Studies Lower-Division Courses**

10. Information and Power. (5) Lecture, five hours. Designed for undergraduate students. Examination of social and cultural contexts of global spread of digital networks and systems. Exploration of ethical, infrastructural, and political questions raised at intersection of systems and cultures. Topics include 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. Designed for undergraduate students. Examination of information technology in society, including Internet, World Wide Web, search engines (e.g., Google, Yahoo), algorithms, information overload, 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. 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 grade, for credit or no credit. Enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

97. Variable Topics in Information Studies. (4) Seminar, four hours. Designed for freshmen/sophomores, but open to all undergraduate students. Exploration of changing set of basic concepts and issues in study of information, information, information and society and culture at introductory level. May be repeated for credit with consent of instructor. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students 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

139. Letterpress Laboratory. (1) Lecture, five hours. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other departments the opportunity to print for personal and scholarly use. Topics include typography, layout, design, and printing techniques. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) 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.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics and evaluate students’ 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 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.
200. Information in Society. (4) Lecture, two hours; discussion, two hours. Examination of processes by which information and knowledge are created, disseminated, organized, used, and preserved. Topics include history of communication technologies, evolution of literacy, development of information professions, and social issues related to information access. Letter grading.

201. Ethics, Diversity, and Change in Information Professions. (4) Lecture, two hours; discussion, two hours. Seminar that serves as forum to discuss, learn, and understand ethical challenges of multicultural information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.

202. History of Books and Literacy Technologies. (4) Lecture, two hours; discussion, 90 minutes. Issues in history of books, writing, and literacy technologies. Investigation of invention of writing, diverse cultural concepts of literacy, earliest use of systematic notation systems in Mesopotamia, and current development of digital technologies that shape contemporany concepts of book of future. Discussion of historical development of technology (tablets, scrolls, codices, illumination and illustration techniques, paper and mass production, photography, digital tools), institutions (libraries, printing and publishing industries), and cultural issues and politics (publishing, censorship, globalization, regionalization, formats and style type design, graphic design, aesthetics), and some important figures and events in book history. Focused on Western traditions, but not to exclusion of developments in Asia, Near East, Islamic empire, and elsewhere, and on role of cultural diffusion and diversity encouraged. Letter grading.


204. Scholarly Communication and Publishing. (4) Lecture, three and one half hours. Designed for MLIS students, graduate students in any discipline. Examination of different ways of expressing ideas and concepts, the impact of these expressions in different media, and the changing nature of communication systems. Significant emphasis is placed on the role of the librarian in scholarly communication. Content includes: the changing nature of scholarly communication; the librarian as a scholar and disseminator of information; the role of the librarian in the creation and dissemination of information.

205. Cyberspace Law and Policy. (4) Lecture, four hours. Legal history of technology and communication and information technologies from international perspective. Emphasis on jurisdictional issues, freedom of expression, intellectual property, privacy, security, equity, and electronic commerce in online environment. SU or letter grading.

206. Introduction to Economics of Information. (4) Seminar, three and one half hours. Introduction to key concepts, scholars, and studies in economics of information. Topics include economic value and measurement of information, information industries and markets, public goods theories of knowledge and information, network externalities, consequences of intellectual property regimes, information and economic development, information work and occupations, information and organizational activity patterns, and sectoral analyses of national and global information economies. Letter grading.


208. Scholarly Communication and Bibliometrics. (4) Lecture, four hours. Preparation: one inferential statistics course. Survey of scholarly communication and bibliometrics, seeking to understand flow of ideas through published record, whether in print, electronic form, or some combination. Letter or S/U grading.

209. Perspectives on Information Societies. (4) 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: sociology, anthropology, philosophy, information science, public policy, and political science. Focus on critical examination of key writers and scholars in areas of information society policy and issues. Letter grading.

210. Global Media and Information. (4) Lecture, three and one half hours. Question of what diversity and culture mean in era of interconnected networks and massive technological diffusion loops. Part of this involves problem of how to work with differing ways of knowing by the growing number of cultures. It is now widely accepted that global cultures and communities differ in way they practice knowledge, understanding, and making meaning of their worlds. How we draw boundaries and construct communities has become increasingly complicated. Culture becomes increasingly mediated and community has elements of local and global imagination. How are political, economic, cultural, and social perspectives changing? What are the consequences of the change in media? How does this shape nature of how power functions? How does this impact heritage, economy, politics, and identity? Letter grading.

211. Artifacts and Cultures. (4) Lecture, two hours; discussion, two hours. Examination of social, cultural, and technical practices through which meanings, memories, ideas, and knowledge-claims are generated. Concepts are recorded, reproduced, mediated, collected, and appropriated; and they are sometimes forged, stolen, or subverted and are often shared, juxtaposed, exhibited, communicated, interpreted, reinterpreted, or remixed. Their formats may be oral and written, static and dynamic, numerical and in-scriptive and performative. Artifacts are single-medium and multimedia, static and dynamic, numerical and narrative, scholarly and popular, and analog and digital. They consist of words, data sets, and cultural objects through which information and evidence are authored, published, collocated, exchanged, preserved, and accessed. Examination of these artifacts and their properties, types, and relationships: media, formats, genres, materials, states, contents, components, subjects, structures, functions, aesthetic qualities, roles, costs, affordances, and use values. Letter or S/U grading.

212. Values and Communities in Information Professions. (4) Lecture, two hours; discussion, two hours. Forum to discuss, understand, and critique value systems and power structures embedded in information professions. Emphasis on understanding importance of thinking locally, from grassroots, in design, evaluation, and engagement with information institutions and technologies, ranging from archives and libraries to Internet. Aspects of information society that shape and are shaped by cultural, societal, professional, community, and individual values, including exploration of impact of such values on professional practice, decision making, and public policy. Letter or S/U grading.

213. Current Issues in Librarianship. (4) Lecture, two and one half hours; discussion, one hour. Overview of historical and evolving conceptual foundations of librarianship, including professional associations, key principles, core values, and current issues in library studies. S/U or letter grading.

214. Informatics: Principles and Practices. (4) Lecture, three and one half hours. Principles, theories, and professional practices including cross-disciplinary social analysis of information systems, values and design, infrastructural dynamics, user experience, and prospective analysis. S/U or letter grading.

215. Introduction to Information Literacies. (4) Formerly numbered 448. Lecture, four hours. Foundational 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 problem-solving 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. Emphasis on understanding and refining information research questions; conducting effective information researching; distinguishing among and critically evaluating information resources such as books as well as types of items, such as ads, opinions, and factual studies; documenting sources used in information research; 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 currently scheduled with course C115. S/U or letter grading.

226. Indigenous Librarianship. (4) Lecture, three hours. Exploration of trends and topics in indigenous librarianship (IL), emerging branch of library and information science. Exploration of IL as category of social research that seeks to understand how particularities of sociohistorical, economic, political, and cultural conditions of indigenous communities shape perspectives and practices of collection, organization, preservation, and dissemination of knowledge. Investigation of practices associated with IL, focusing on means of creating indigenous librarianship and knowledge systems; and on procedures and norms to guide responsible and respectful care for materials with indigenous content that are preserved outside of indigenous communities. Recommended for students doing interdisciplinary research with advocacy focus, and for those interested in working with tribal communities and/or collections containing indigenous materials. Letter grading.

227. Information Services in Culturally Diverse Communities. (4) Lecture, four hours. Issues in provision of information services in multilingual and multicultural society. Understanding role of information institutions in promoting cultural diversity and preserving ethnic heritage. Letter grading.

228. Assessment, Measurement, and Evaluation of Information Organizations and Services. (4) Lecture, four hours. Introduction to assessment and evaluation as an interdisciplinary research with advocacy focus, and for those interested in working with tribal communities and/or collections containing indigenous materials. Letter grading.

M229C. Introduction to Slavic Bibliography. (2) (Same as Slavic M229C) Lecture, two hours. Introduction to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminology and cataloging; survey of information retrieval systems; acquisition of Slavic and East European library materials; Slavic and East European scholarship
233. Records and Information Resources Management. (4) Lecture, three hours. Introduction to records and information resources management in corporate, government, not-for-profit, and other organizational contexts, including analysis of organizational information flow, classification and filing systems, records retention scheduling, records protection and security, reprographic and digital information technologies, and litigation support. Letter grading.


236. 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 with theoretical positions derived from new theories in media studies, digital humanities, and digital structuralist, semiotic, and visual studies approaches. Identification and understanding of methods by which artifacts have been produced and thinking about implications for organizing artifacts within cultural, economic, and technological systems of value production. Letter grading.


M238. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Conservation M240.) Lecture, two hours; laboratory, two hours. Required: course 432. Review of environmental and biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.

242. Letterpress Laboratory. (1) Laboratory, two hours. Hands-on working experience in letterpress shops designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on project group for duration of term. S/U grading.

240. Management of Digital Records. (4) Lecture, three hours. Introduction to long-term management of digital administrative, information, communications, imaging, or research systems and records. Topics include electronic recordkeeping, enterprise risk management, systems analysis and design, metadata development, data preservation, and technological standards. Letter grading.

241. Digital Preservation. (4) Lecture, three and one half hours. Nature of digital media and networking necessitates reformulation of traditional concepts such as authenticity, authorship, and originals; information systems and metadata that are specifically designed to manage preservation process; new ethical, rights, and collaborative frameworks; and economic, legal, and policy tools with which to manage digital information over long term. Introduction to strategies, technologies, and issues related to digital preservation. Letter grading.

M244. Collection Management for Archives, Librarians, and Museums. (4) (Same as Conservation 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.

245. Information Access. (4) Lecture, two hours; discussion, one hour. Required: 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 online resources. 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 using, using, and acting on information. Topics include information theory, human information processing, information flow among social and occupational groups, and research on information needs and uses. Letter grading.


251. Seminar: Specialized Literatures. (4) Seminar, four hours. Required: course 245. Exposure to major literatures across spectrum of disciplines in three broad areas: (1) bibliographies, (2) social sciences, (3) natural sciences and engineering. Students become familiar with knowledge structures; emphasis on reference and information sources for scholarly research. Letter grading.

M253. Medical Knowledge Representation. (4) (Same as Bioengineering M226.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Introduction to information representation and its application in healthcare processes. Topics include data structures used for representing knowledge (conceptual graphs, frame-based models), different data models for representing spatio-temporal information, role-based implementations, current statistical methods for discovery of knowledge (data mining, statistical classifiers, and hierarchical classification) and its retrieval. Review of work in constructing ontologies, with focus on problems in implementation and definition. Common medical ontologies, coding schemes, and standardized indexes/terminologies (SNOMED, UMLS). Letter grading.

254. Medical Information Infrastructures and Internet Technologies. (4) (Same as Bioengineering M227.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, 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) implementations. Commonly used medical communication protocols (HL7, DICOM) and current medical information standards (RIS, PACS). Advancements in networking, such as wireless health systems, peer-to-peer topologies, grid/cloud computing. Introduction to security and encryption in networked environments. Letter grading.

M255. Medical Decision Making. (4) (Same as Bioengineering M228.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of uses and types of decision making. Introduction to concept of evidence-based medicine and decision processes related to process of care and outcome. Basic probability and statistics to understand research methods, 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.


258. 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. Legal databases, services and resources. 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 order and meaning is given, and other forms of information are organized and represented. Design, development, and evaluation of techniques and tools, including data models, metadata schemata, search engines, and multimedia systems in support of curriculum, stewardship, discovery, and use. Letter grading.

262A. Data Management and Practice. (4) Lecture, three and one half hours. Designed for MLIS and PhD students. Survey of landscape of data practices and services, including data-intensive research methods; social studies of data practices; comparisons between disciplines; management of data by 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 sharing needs of communities 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 MLIS students. Continuation of course 262A to address topics of data curation and policy in more depth. Data selection and appraisal, archives and repositories, economics of data curation, data access and sharing, provenance, intellectual property, policy roles of multiple stakeholders in data, and institutional challenges in curation and sharing. Seminar with an emphasis on issues of community and group project to curate actual data of UCLA researchers in other academic departments. Letter grading.

269. Seminar: Information Structures. (4) Seminar, four hours. Required: course 260, one other information structures course. Specialized studies in selected areas of descriptive and bibliographic cataloging, subject vocabularies and classifications, and metadata. May be repeated once. Letter grade.

270. Systems and Infrastructures. (4) Lecture, four hours. Social, cultural, and technical practices through which information and media infrastructures—networks, systems, technologies, interfaces, standards, institutions, bureaucracies, markets—are designed, built, maintained, and evaluated. Ways in which information infrastructures both shape and are shaped by socio-economic trends, labor movements, technical advances, and professional and personal value systems, at levels ranging from local to global. S/U 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, networks, and databases. Focus on practical skills for manipulating library and archive metadata, such as searching, sorting, regular expressions, writing database queries, calling application search.
program interface (API), and handling multiple serializa-
tion 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 evalu-
ation methods in human/computer interaction, with involv-
ements from several disciplines. Extensive use of tech-
nology demonstrations and class discussions. Rec-
commended for students in any discipline involved in design or presentation of information technologies. Letter grading.

273. Communities, Information, and Civic Life. (4) Seminar, three and one half hours. Investigation of concepts of community through direct collab-
oration 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, anthro-
pology, and urban studies. Investigation of range of sub-
fields of information studies and cognate disci-
plines. Frameworks for theory construction, such as career planning, continuing education, teaching, mentoring, and reflexive practice; students also en-
gage in process of guided portfolio design for MLS degree. S/U or letter grading.

275. Community Media and Design. (4) Lecture, two hours; laboratory, two hours. Information profes-
sionals, scholars, activists, and information creators/designers/architects focus on questions of culture and community to engage students in understanding infor-
mation resources as social objects. Role of culture and heritages institutions within dynamics presented, but most fundamentally on how communities in partner-
ship with/by media professionals can critique, surve,
and represent information on their own and within their own terms. How new media can begin to serve as tool of empowerment rather than strati
fication. Study of impacts of technology on larger scales through read-
ings and individual research projects. Letter grading.

tion, retrieval techniques, and search strategies in control of information in computerized form. Letter grading.

277. Information Retrieval Systems: User-Centered Designs. (4) Lecture, two hours; discussion, two hours. Reading, discussion of methods of interaction between users and features of au-
tomated information systems and interfaces that are specific to information-seeking process. Emphasis on search strategies and subject access through use of thesauri and other vocabularies. Letter grading.

278. Information and Visualization. (4) Lecture, two hours; discussion, 90 minutes. Access to and analysis of information through the Internet has become increas-
ingly prevalent as digital tools have made cre-
ation of such visualizations easier and more popular. Many software tools for such visualizations come from statistical packages; others come from GIS or spatial mapping, while others are more diagrammatic in de-
sign. Basic organization of graphical user interfaces depends on visualization of function, structure of and assumptions about information systems, and extends to graph-
ical features that embody models of information in daily use. What are ways in which organization of visual-
ization presents arguments about knowledge? What do historical, design, and contemporary inter-
faces tell us about the evolution and integration of con-
temporary visualizations? Letter grading.

279. User Experience Design. (4) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow flexible emphasis on speci-
fied areas such as vocabulary control, file design, in-
dexing, classification, test processing, and evaluation of relevance, evaluation of information systems, and social and policy issues related to information tech-
nology and services. Letter grading.

280. Social Science Research Methodology for In-
formation Studies. (4) Lecture, four hours. Under-
standing of social science research methods in research ap-
propriate to information studies. Identification of research problems and design and evaluation of re-
search. Social science quantitative and qualitative methods. Emphasis on inquiry methodology and em-
pirical research. S/U or letter grading.

281. Historical Methodology of Information Stud-
ies. (4) Lecture, four hours. Requisite: course 200. In-
troductory course to library and information science. Identification of key primary and secondary source material for writing history in field. Critical analysis of selected histories of various areas in the profession. Problem-oriented approach. Letter grading.

282. Design as Research Method. (4) Seminar, three and one half hours. Principles, and applica-
tion of design as methods for discovery, exploration, and evaluation of user requirements, functionality, values, and system structure. S/U or letter grading.

288. Research Apprenticeship Course. (2 to 4) Seminar, two hours. Use of mentorship model of training graduate students in information studies, with focus on developing and assessing graduate student research topics. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

289. Seminar: Special Issues in Information Stud-
ies. (4) Seminar, three and one half hours. Identi-
fication, analysis, and discussion of critical intellectual, social, and technological issues facing the profession. Topics may include (but not limited to) expert systems, literacy, electronic networks, youth at risk, information literacy, historical bibliography, preservation of elec-
tronic records, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) Seminar, one to two hours. Designed for PhD stu-
dents. Emphasis on recent contributions to theory, re-
search, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of information studies—ontological, epistemological, and poststructural concepts; role of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, contexts, institutions, practices, properties, values, and professional roles. Pervasive context—subfields of information studies and cognitive disci-
plines. Frameworks for theory construction, such as critical theory, discourse analysis, hermeneutics, phe-
xnomenology, 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 informa-
tion and evidence—record-keeping and memory-
making, personal and community identity, account-
ability and trust. Information and design—design and implementation of information systems and services, information aesthetics. Information retrieval and knowledge organization. Information seeking, access, and use—contexts, techniques, needs, barriers, Infor-
mation and power—groups, ideologies, identities, structures. Information and value—information ethics, evaluation of information services. Information policy and law—processes, institutions, players, stakes. In-
formation systems—organizations—domains, ecologies, cultures, communities. Economics, geog-
raphy, history, philosophy, politics, sociology of infor-

292. Doctoral Research Methods and Design. (4) Seminar, four hours. Survey of qualitative, his-
torical, and social research designs. Ethical is-
sues; conceptualization and measurement; indexes, scales, and sampling; experimental, survey, field, and evaluation research; data analysis. Letter grading.

298B-298C. Special Topics in Methodology of In-
formation Studies. (4–4) Seminar, four hours. En-
forced requisite for course 298C: course 298A. Topics include anthropological fieldwork methods, archival methodology, bibliographical studies, textual anal-
ysis, discourse analysis, historical methods, informa-
tion visualization, network analysis—bibliometrics, in-
formetrics, scientometrics, social network analysis. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship per-
sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
ponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio De-
sign. (2 to 4) Lecture, two hours; discussion, two hours. Preparation: completion of information studies core courses. Drawing on literature from many fields, exploration of issues related to professional develop-
ment, such as career planning, continuing education, mentoring, and reflexive practice; students also en-
gage in process of guided portfolio design for MLIS degree. S/U or letter grading.

410. Management Theory and Practice for Infor-

mation Professionals. (4) Lecture, two hours; discus-
sion, two hours. Principles and practice of manage-
ment in all types of organizations where information professional work. Letter grading.

421. Special Libraries and Information Centers. (4) Lecture, four hours. Organization, administration, col-
lections, facilities, finances, and problems of colle-
ctions and libraries and of special collections within general li-
braries. Methods of handling nonbook materials. Cur-
tent trends in documentation and mechanization. S/U or letter grading.

422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, col-
lections, facilities, finances, and problems of colle-
ctions and libraries and of special collections within institutions of which they are part. Functions of research libraries and work of their staffs in serving scholars. Letter grading.

423. Public Libraries. (4) Lecture, four hours. Gov-
ernment, organization, and administration of munic-
ipal, county, and regional public libraries; develop-
ments in changing patterns of public library service. S/U or letter grading.

424. Storytelling. (4) Lecture, two hours; demonstra-

425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to children. Overview of professional library service to children aged 14 and under; provides opportunities for stu-
dents to gain experience in particular skills needed to provide that service. Letter grading.

426. Young Adult Literature. (4) Lecture, four hours. Overview of literature which is of interest to young adults (seventh grade and above). Discussion of spe-
cific problems in working with young people and psy-
chology of teenagers. S/U or letter grading.

427. Young Adult Services. (4) Lecture, 90 minutes; discus-
sion, two hours. Theory and practice of service to teens and tweens in libraries. Overview of profes-
sional library service to youth aged 11 and over; op-
portunities for students to gain experience in particular skills needed to provide that service. Discussion of special challenges in working with young people and tweens. Letter grading.

430. Library Collection Development. (4) Lecture, three and one half hours. Background of publish-
ing and book trade from digital to antiquarian pertinent to develop-
ment of collections in public, school, aca-
emic, and special libraries. Theory and practice of collection development and management, including evalua-
tion of library user needs and assessments of collections. Organization and administration of acquisi-
tion 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 their field positions 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 archivists and community on development of practical strategies for documenting their activities; managing, collecting, and preserving their records and other historical and cultural materials; and undertaking community-centred 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. Prerequisite: course 431. Examination of who uses archives and why, with ultimate goal of creating ways to better understand and meet needs of these users as well as engage new audiences in archival programs. Letter has traditionally conceived of their users as academic researchers, more thorough investigation expands this conception of users to include genealogists, artists, K-12 students and educators, families of victims of human rights abuse, community members, and members of general public. Methods for studying users, ways to conduct outreach to target user groups, and ways in which archivists engage with general public. Letter grading.

438A. Seminar: Advanced Issues in Archival Science—Archival Appraisal. (4) Seminar, four hours. Prerequisite: course 431. Evaluation and examination of contributions and key figures in development of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodology. Letter grading.

438B. Seminar: Advanced Issues in Archival Science—Archival Description and Access Systems. (4) Seminar, four hours. Prerequisite: course 431. Exploration and contribution of archival description and access systems in the U.S. and their development since World War II; data collection; access tools and implications of these issues in development of online archival access systems. Letter grading.

439. Seminar: Special Collections. (4) Seminar, two hours; discussion, 90 minutes. Students work with special collections materials on one focused theme or topic and have to think through research aspects of exhibit or symposium or collection assessment and then create well-focused and curated agendas for presentation, exhibition, or preservation of materials. Letter grading.

447. Computer-Based Information Resources (Online Searching). (4) Lecture, four hours. Prerequisite: course 245. Emphasis on use of reference and resource databases and different vendor systems. File structure and hardware requirements. Analyses of information needs and investigation of databases addressing those needs. Letter grading.

455. Government Information. (4) Lecture, four hours. Introduction to nature and scope of government information provided 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. Prerequisites: science instruction resources and services, management of health sciences information resources and services, health sciences environment and policies, information systems and technology. Letter grading.


462. Subject Cataloging and Description. (4) Lecture/discussion, four hours. Prerequisite: course 461. Overview of major alphabetic-subject and systematic indexing languages and their use in manual and online environments, including theory and application of Library of Congress divisions and Dewey Decimal and Library of Congress classifications. S/U or 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, network and vendors (such as bibliographic utilities, relational networks, and online services), and automation of public organizations (universities, municipalities, corporations, and government agencies). Developments in standards for information processing and new information technologies. Letter grading.

480. Introduction to Media Archiving and Preservation. (4) Seminar, four hours. Overview of history, conceptual foundations, policies, institutions, and professional methods that have shaped collections of audiovisual materials from early 20th century to present. Introduction to fundamental archival concepts and key practices, including collection development, appraisal, preservation, restoration, arrangement and description, and critical analysis of their specific application to media collections and materials. Discussion of classical and emergent models for media archive administration, including funding, programming, outreach, access, and reuse; changing role of technology in media creation, collection, and preservation; ethics and community standards; different roles of public, private, and national media archives; and cultural impact of historic and contemporary audiovisual media. Letter grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Limited to departmental doctoral students. Preparation for teaching assistant appointments in departmental undergraduate courses. Principles of instructional design and evaluation, curriculum development, instructional technology use, and key teaching issues (diversity, students with disabilities, academic integrity, copyright). S/U grading.

497. Fieldwork in Libraries or Information Organizations. (4 or 8) Fieldwork, 12 or 24 hours depending on nature and complexity of experience or project. Faculty-directed experience in approved library, archive, or other information setting. Fieldwork experiences may include opportunities in state, national, and international institutions. S/U grading.

498. Internship. (4) Discussion, to be arranged. Supervised independent field experience in library or information center approved by internship coordinator. Minimum of 120 hours per term. May be repeated twice. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable conference time depending on nature of study or complexity of research. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable conference time depending on nature of study or complexity of research. S/U grading.

597. Directed Studies for PhD Qualifying Examination. (2 to 12) Tutorial, to be arranged. Directed study for PhD Qualifying Examination. S/U grading.

599. PhD Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.
Learning Outcomes

Physiological Science BS

Overview

The cornerstone of the Physiological Science curriculum is vertebrate physiology, with emphases on integrative functions. The research and educational programs of the Department of Integrative Biology and Physiology focus on integrative physiology at several levels of organization from molecules to living organisms, microscopic structures to macroscopic organization, and cellular properties to organ functions. Students receive comprehensive instruction in all areas of physiological science, while elective courses reflect faculty research expertise, including developmental neurobiology, gene regulation/neural development, cellular neurobiology, molecular neurobiology, neuromuscular physiology, neuroendocrine physiology, cardiac physiology, diet and degenerative disease, autonomic and vascular biology, cellular neurobiology, biomechanics of re- habilitative medicine, muscle cell biology, inflammatory cell biology, vascular biology, cardiac electrophysiology, neuromotor control, and social control of neuronal plasticity.

Undergraduate Major

Physiological Science MS

Learning Outcomes

The Physiological Science major has the following learning outcomes:

- Demonstrated broad-based knowledge of the fundamentals of anatomy and vertebrate physiology
- Reading and understanding of primary scientific literature
- Understanding key questions and hypotheses
- Discrimination of quality through critique
- Appreciation for research by participating in one or more laboratory experiences
- Value science and research and their relevance to one’s own life and society

Entry to the Major

Admission

To enter the Physiological Science major, students must complete Chemistry and Biochemistry 14A, 14B, 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 30C, or Statistics 13, and Physics 1A or 5A, with a minimum grade of C in each course and a grade-point average of 2.5 or better in all before fall quarter of their third year. Repetition of more than one of these nine preparation courses results in denial of admission to the major. After successful completion of the courses, students must contact the Undergraduate Advising Office to declare the major.

Transfer Students

Transfer applicants to the Physiological Science major with 90 or more quarter units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Transfer credit for UCLA Extension coursework and for any departmental courses is subject to prior approval by the department; consult with the undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required:
- Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30B, 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

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 198A 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.

Honors Program

The honors program provides exceptional students with the opportunity for individual research culminating in an honors thesis.

Policies

Preparation for the Major

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.

The Major

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

Students must have 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 interdepartmental Molecular, Cellular, and Integrative Physiology PhD program or the interdepartmental Neuroscience PhD program.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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. (8) 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. (4) Lecture, four hours; discussion, 30 minutes; laboratory, 90 minutes. Not open to Physiological Science majors. Basic introduction to principles of human biology, with special emphasis on diet and exercise and nutrition play in health, and prevention and management of such illnesses as hypoglycemia, diabetes, and heart disease. Prerequisites: courses 111A, 111B, or 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of 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, alternatively, sleep and wakefulness are related in a feedback mechanism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of core C128 is highly recommended. Concurrently scheduled with course CM223. Letter grading.

124. Molecular Biology of Aging. (4) Lecture, three hours; discussion, one hour. Prerequisites: Chemistry 153A, Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Discoveries of new science of aging biology, with examination of aging as plastic trait modulated by genes and physiological processes. Discussion of how these findings integrate with both normal and pathological lifespan and complex and profound relationship between underlying aging process and diseases of aging. Topics include dietary restriction, mitochondria, insulin/IGF signaling, and link between hormone suppression and organismal aging. Letter grading.

125. Molecular Systems Biology. (5) Lecture, three hours; discussion, one hour. Prerequisites: Life Sciences 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Quantitative description of molecular systems that underlie myriad phenotypes in living cells. Topics include variousomics fields and high-throughput technologies, network biology, and synthetic biology. Introductory lecture techniques for molecular biology, computer-aided bioinformatic approaches, and systems modeling integrated with discussions of their applications in disease-related research. Review of recent literature to gain overall perspective about new science of systems biology. Letter grading.


128. Me, Myself, and Microbes: The Microbiome in Health and Disease. (5) Lecture, four hours; discussion, 90 minutes. Prerequisites: course 107 or Chemistry 153A, Life Sciences 2 and 3, or 7A, 7B, and 7C. Exploration of the inter-kingdom interactions of microbiota with host health and disease, drawing upon basic properties for microbial communities, interactions with immunity, metabolism, and microbiology. Letter grading.

130. Sex Differences in Physiology and Disease. (4) Lecture, three hours. Prerequisites: 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 chro-

Upper-Division Courses

100. Experimental Statistics. (4) Lecture, four hours. Introduction to experimental design, computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/NP or letter grading.

M106. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Psychology M186.) Lecture, four hours. Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis from genetics to neural circuits to behavior. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

107. Systems Anatomy. (5) Lecture, four hours; laboratory, three hours; tutorial, two hours. Requisites: Life Sciences majors. Students must receive grade of C or better to proceed to next course in series. Systems anatomy focused primarily on human anatomy. Topics include cardiorespiratory, reproductive, nervous, and skeletal-muscular systems, with introduction to biomechanical principles. Letter grading.


111A-111B. Foundations in Physiological Science. (6–6) Lecture, four hours; discussion, two hours. Letter grading. 111A, Requisites: course 107, Chemistry 140, 141, or 142. 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 140D or 305B. 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 cardiovascular and pulmonary physiology.

111L. Physiological Science Laboratory. (4) Lecture, four hours. Requisites: courses 111A and 111B, with grades of C– or better. Required of Physiological Science majors. Designed to illustrate physiological principles studied in courses 111A, 111B. Letter grading.

120. Kidney: Understanding It from Development to Disease to Therapy. (4) Lecture, three hours. Enforced requisite: 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-the-art research on kidney repair and regeneration. Letter grading.

121. Disease Mechanisms and Therapies. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 153A, and Life Sciences 2, 3, or 4 and 7A, 7B, and 7C. Designed for junior/senior Biochemistry and life sciences majors. Use of disease mechanisms as pedagogical tools to develop higher-order knowledge of basic scientific concepts. Integration of concepts from genetics, biochemistry, 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 bioinformatics, molecular medicine, and tissue engineering. Exploration of candidate treatments and the impact on diagnosis and treatment of disease, basic engineering principles, and design that lend themselves to deciphering physiological and cellular states, and application of new technologies in clinical practice and biomedical research. Letter grading.

CM123. Neurobiology of Sleep. (4) (Same as Neuroscience SM123.) Lecture, three hours; discussion, one hour. Requisites: courses 107A and 107B or 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of 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, alternatively, sleep and wakefulness are related in a feedback mechanism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of core C128 is highly recommended. Concurrently scheduled with course CM223. Letter grading.

CM1B. Honors Courses. (1) Tutorial. Three hours; laboratory, two hours. Not open to Physiological Science majors. General honors seminar. Designed to illustrate physiological processes studied in courses 111A, 111B. Letter grading.

111HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.


molecules, molecular and environmental determinations of target 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. Gender, gender identity, and its environmental influences and their influence on physiology, and politics of financial support for research of sex and gender differences in disease. Concurrently scheduled with course C290B. Letter grading.

M135. Dynamical Systems Modeling of Physiological Processes. (5) (Formerly numbered 135) (Same as Neuroscience M135.) Lecture, four hours; laboratory, two hours. Studies and evaluates dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.


140. Hormones and Behavior of Other Animals. (4) (Formerly numbered M140D.) Lecture, three hours; discussion, one hour. Examination of hormones, physiology and genetics involved in hormonal processes and function, interactions among hormonal levels, environmental stimuli, and behavior. Sexual behavior, pregnancy, and lactation, parental behavior, and development and emigration, stress, social behavior, dominance relationships, aggression, chemical communication and reproductive suppression. Critique of primary literature on behavioral endocrinology about humans and other species. Consideration of special topics, be they related to endocrine or pharmacological sampling methods, and which types of questions can be answered in laboratory and field, as well as ethics of hormonal studies and their implications for humans and other animals. Letter grading.


M145. Neural Mechanisms Controlling Movement. (5) (Same as Neuroscience M145.) Lecture, four hours. Requisite: course 111A or M180A or Neurosciences M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Lifting, lowering, and manipulation of objects. Letter grading.

146. Principles of Nervous System Development. (5) Lecture, three hours; discussion, two hours. Requisites: courses 107 or (Neuroscience 102) and 111A or (M180A or Neuroscience M101A). Construction of the central nervous system as series of integrated steps beginning with several embryonic cells and culminating as complex highly ordered system. Topics include neurulation, regional differentiation, axonal outgrowth, and synaptogenesis. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, four hours; discussion, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.

148. Physiological Regulation of Metabolism and Nutrient Sensing. (4) Lecture, two and one half hours; discussion, two hours. Requisite: course 111B. Study of endocrines and processes of macronutrients like carbohydrates, lipids, and proteins in mammals. Students gain tools and knowledge for synthesizing new information from advances in nutrition research to add to basic understanding of macronutrient metabolism. Use of clinical case studies to understand how human metabolism in pathological pathways lead to metabolic disorders. Discussion of diabetes, atherosclerosis, glycogen storage disease, inborn errors of metabolism, mitochondrial disorders, and lysosomal storage diseases. Study of how cells sense nutrients and adapt metabolism to unique needs of cells—for example, how cells respond to excess cholesterol. Discussion of mechanisms involved in adaption and synthesis of nutritional and physical environments and their influence on physiology, and politics of financial support for research of sex and gender differences in disease. Concurrently scheduled with course C290B. Letter grading.


153. Dissection Anatomy. (5) Lecture, two hours; laboratory, six hours. Requisite: course 107. Prior to first meeting, students must complete Bloodborne Pathogens training course through Environmental Health and Safety. Study and dissection of upper and lower extremities of human cadavers; dissection of thorax and abdomen limited to musculature and neurovascular supply. Letter grading.

154. Cellular Communication and Regulation of Physiological Processes. (4) Lecture, three hours. Limited to juniors/seniors. Signal transduction concepts, with focus on role of receptors, G proteins, and intracellular pathways. While computational and quantitative 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. Controversies and scientific research articles used as basis for material presented. Students required to present journal article for discussion. Letter grading.

155. Development and Structure of Musculoskeletal System. (4) Lecture, four hours. Requisite: course 111B. Development, histology, cell biology, and biochemistry of musculoskeletal soft tissues. Integration of knowledge of muscle and connective tissue structure and function on fundamental principles of tissue organization and physiological behavior of the intact system.

156. Molecular Mechanisms and Therapies for Muscular Dystrophy. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A or M180A, or Neuroscience M101A or Neuroscience M101B. Hereditary muscle diseases of humans and other animals. Letter grading.

157. Comparative Animal Physiology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Physiological response and function at molecular, cellular, tissue, and whole organism levels of variety of animal models to range of environmental conditions. Major topics include neural and muscular structure and function, hormones, gas exchange, energetics, and thermoregulation. Examination of wide variety of vertebrates and invertebrates. Use of primary literature to analyze primary research related to topics covered in lecture. Letter grading.

166. Animal Physiology. (6) Lecture, three hours; laboratory, three hours. Requisites: Chemistry 1A, 1B, 1C, and 1D, or 20A, 20B, 30A, or 30B. Limited to Physiology Science Majors and Food Studies minors. Topics include physiological adaptation to starvation and physiological responses to oxidants/antioxidants, vitamins, minerals, and trace elements. Exploration of drugs and their potential analogues to common chronic diseases and physiology of fuel utilization during aerobic and anaerobic exercise. Letter grading.

M171. Variable Topics Research Seminar: Computational Biology. (2) (Same as Neurobiology M171.) Seminar, two hours. Limited to undergraduate fellows in Integrated and Interdisciplinary Undergraduate Research Program. Presentations of scientific findings from original scientific research and from students’ own research. May be repeated for credit. P/NP grading.

173. Anatomy and Physiology of Sense Organs. (4) Lecture, three hours; discussion, two hours. Requisites: courses 111A, or M180A and M180B, or Corequisite: Cell, and Developmental Biology M175A and M175B. Structure and function of sense organs. Adoption of organismal and quantitative approach to provide insight into evolution of sense organs in both invertebrates and vertebrates. Letter grading.

174. Cell Biophysics in Physiology and Disease. (5) Lecture, three hours; discussion, two hours. Requisites: Chemistry 153A, Life Sciences 7B, 7C, 7D, or 7A, 7B, 7C, and 23L, Physics 5A, 5B, and 5C, or 6A, 6B, and 6C. Exploration of cell biochemistry 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 Fido Can’t Speak: Biological Evolution of Language. (4) Lecture, three hours; discussion, one hour. Requisite: course 111A or Neuroscience M101A. Homo sapiens are only species currently on planet to possess language. Exploration of whether other species possess 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 compositional meaning. Topics involve fields of anthropology, bio psycholinguistics, linguistic, molecular genetics, neuroscience, and psychology. Letter grading.

176. Auditory Neuroscience of Speech Perception and Vocal Communication. (4) (Same as Neuroscience M176.) Lecture, two and one half hours; discussion, 90 minutes. Requisite: course 107 or Neuroscience M101A. Interdisciplinary understanding of how humans and other animals communicate emotion and meaning using sound. Weekly research topics in disciplines of systems neu-
177. Neuroethology. (5) Lecture; four hours; discussion, two hours. Requisite: course 111A or 118A. Physical properties of animal signals and sensory and communicative abilities as mechanisms underlying their generation. Topics include classical neuroethological models: acoustic and mechanical communication in invertebrates, vibration communication in vertebrates, sound localization, and hearing; microlocalization and interaction in electric fish, and neurobiology of birdsong. Letter grading.

M178. Quantitative Regulatory Biology and Signal Transduction. (5) Lecture number 117B, 117C, 117D, or 117E. Introduction to key biological regulatory circuit motifs and systems biology concepts that are critical to understanding how cellular responses are controlled. Letter grading.

M180A. Neuroscience: From Molecules to Mind—Cellular and Computational Neuroscience. (5) Same as Molecular, Cell, and Developmental Biology M175A, Neuroscience M101A, and Psychology M117A.) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 6 or 6C or 6P or 6P (may be taken concurrently), 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.

M180B. Neuroscience: From Molecules to Mind—Molecular and Developmental Neuroscience. (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), Life Sciences 7C. Molecular biology of channels and receptors; focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in developmental neuroscience; P/NP or letter grading.

M180C. Neuroscience: From Molecules to Mind—Behavioral and Cognitive Neuroscience. (5) (Same as Neuroscience M101C, Molecular, Cell, and Developmental Biology M175C, and Psychology M117C.) Lecture, four hours; discussion, 90 minutes. Requisites: course M180A with grade of C– or better; Neural mechanisms underlying motivation, learning, and cognition. P/NP or letter grading.


188A, 188B. 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.

188S. 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.

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 188S. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188S. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in 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.


191H. Honors Seminars: Current Topics in Physiology. (4) Seminar, four hours. Requisites or corequisites: courses 118A, 118B. Limited to neuroscience and physiological science honors program students. Designed for juniors/seniors and required of departmental honors students. Presentation of primary paper from physiology literature. Reading and critical evaluation of current research literature. Preparation of student laboratory research hypothesis, approach, and results in form of oral and poster presentations. Letter grading.

192. Practicum in Systems Anatomy for Undergraduate Medical Students. (2) Two hours additional hours in laboratory setting, to be arranged. Requisite: course 107. Limited to juniors/seniors. Training and supervised practice in systems anatomy for undergraduate assistants. Consult Undergraduate Office for further information. May not be applied toward elective requirements and may not be repeated for credit. Departmental application required. P/NP or letter grading.

192A. Introduction to Collaborative Learning Theory and Practice. (1) Seminar, one hour. Preparation: at least one term of prior experience in same course in which collaborative learning theory is practiced and refined with prior students. Training seminar for undergraduate students who are selected for learning assistant (LA) program. Exploration of current approaches to pedagogy and learning research focused on methods of teaching and their practical application in small-group settings. Students practice communication skills with frequent assessment of feedback on progress. Letter grading.

192B. Methods and Application of Collaborative Learning Theory in Physical Sciences. (2 to 4) Seminar, two hours; laboratory, six hours. Requisites: course (may be taken concurrently), and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with 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: 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 under-graduate students in research laboratories 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 major. Individual contract 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, 153 (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 198A (may be taken concurrently), 198B. Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors with faculty member. May be repeated for credit and may not be applied toward elective requirements for major. Individual contract with supervising faculty member required. Individual contract required. Letter grading.

198C. Advanced Studies for Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisite: course 198B. Corequisite: course 193. Limited to juniors/senior physiological science honors program students. Additional course to provide further research opportunities for departmental honors students. Directed independent research for departmental honors with 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 198A (may be taken concurrently), 198B. Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors with faculty member. May be repeated for credit. Individual contract required. Letter grading.
Graduate Courses

200. Advanced Experimental Statistics. (4) Lecture, four hours; laboratory, one hour. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. S/U or letter grading.

M202. Cellular Neurophysiology. (4) Same as Neurobiology M200F and Neuroscience M202L. Lecture, three hours; discussion, two hours. Requisites: courses 111A or M180A or Physics 5C, 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmission, nervous system by second messengers, and sensory transduction. Letter grading.


211. Exercise Cardiopulmonary Physiology. (4) Attention to cardiac and respiratory adaptations to acute exercise as well as adaptations associated with regular exercise training.

215. Molecular and Cellular Foundations of Physiology. (5) One hundred and fifty 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 CM223. (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 and circadian rhythms, role of central nervous system in control of respiration, circulation, swallowing, and bladder control. Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C144. Letter grading.

241. Neural Plasticity and Repair. (4) Lecture, four hours. Preparation: basic neuroscience background. Progress in basic and clinical neuroscience provides new insight to understand mechanisms of cell repair and strategies to promote neural repair, focus on physiological, molecular, and anatomical basis of repair and its importance in physiological systems. Letter grading.

C244. Neural Control of Physiological Systems. (4, 4) Lecture, four hours. Requisite: course 111B or M180B. Role of central nervous system in control of respiration, circulation, swallowing 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. (4, 4) Lecture, four hours. Requisite: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mas- tication, and swallowing. Letter grading.

250A. Muscle Dynamics. (4, 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.


265. Neuromechanical Control of Rhythmic Movements. (4) Lecture, four hours. Requisite: course M415. Advanced topics on brainstem mechanisms responsible for controlling cyclic and stereotypical movements such as mastication and locomotion. Emphasis on cellular inter- action 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 111A. Foundation for experimental study of principles of muscular and neural physiology and cell- ular imaging. Letter grading. 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 analysis tools of research in physiology, evaluation of research literature in physiology; scientific communication—written and oral presentations; scientific ethics; and professional development—writing a scientific manuscript, CV, and cover 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, neuroethology, 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, cytokidifferentiation, 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 presentation for three-hour seminar and two-hour seminar presentation required for 4 units. S/U or letter grading.

293A-293B-293C. Seminars: Musculoskeletal Function and Adaptation. (2 to 4 each) Seminar, one hour. Requisites: courses 138, 260. Selected topics on musculoskeletal factors of movement, metabolic aspects of exercise, and mechanics of connective tissue. Students required to present two-hour seminar. S/U or letter grading.

294. Recent Advances in Neuropsychology. (1) Seminar, one hour. Requisite: Life Sciences 2 or undergraduate degree in science. Critical examination and discussion of recent data and publications that form the basis of current functional investigations, readings, and participation in discussions required. S/U grading.

256. Cellular Neurophysiology. (5) Lecture, four hours; laboratory, two hours. Introduction to the study of the nervous system at the cellular level. Topics include the structure and function of nerve cells, synaptic transmission, and neural plasticity. Letter grading.
295A-295B-295C. Seminars: Cellular Neuroscience. (2 to 4 each) Seminar, two to four hours. Required; course M202. Selected topics in sensory transduction, cellular integration, synaptic processing, central nervous system function, and learning. Students required to present two-hour seminar. S/U or letter 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 credit. S/U grading.

495. In-Service Practicum for Teaching Assistants in Physiological Science. (2) Seminar, to be arranged. Required of all teaching assistants. Supervised practicum in teaching laboratory courses in physiological science; material 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.

596. 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 prior 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 laboratories 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) Tutorial, to be arranged with faculty member serving as student's comprehensive examination chair 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.

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Overview
The International Institute offers a variety of area studies majors and minors through the International and Area Studies Interdepartmental Program (IDP). The overarching goal of each of these programs is to address the need for students to have a broad understanding of the international nature of the world and guide them through a course of study that allows them to apply that knowledge to a particular region of interest. The majors are structured so that area-specific content proceeds in tandem with instruction in the humanities and social sciences disciplines that provide the tools for analyzing the cultures, social structures, polities, and histories of the regional areas.

Emphasizing the contemporary world since 1750, the majors establish a common conceptual and thematic basis for study of regional areas. Students take a common core course that illuminates the international character of the contemporary world and introduces a set of contemporary issues and challenges that cross borders and regions. Thematic and conceptual courses equip students with a variety of disciplinary tools they can use to study a particular area or region. Studies culminate in a capstone seminar.

Undergraduate Study
Students considering a major or minor in the interdepartmental program should consult with the academic counselor as soon as possible in their UCLA career, but in no case later than the point at which they are about to begin taking upper-division courses. Students should select courses to fulfill major or minor requirements in consultation with the academic counselor.

Undergraduate Majors
African and Middle Eastern Studies BA
The African and Middle Eastern Studies major allows students to analyze the area or a 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.

Study Abroad
African and Middle Eastern Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Capstone Major
The African and Middle Eastern Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

Learning Outcomes
The African and Middle Eastern Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
Entry to the Major

Admission

To be eligible to declare the African and Middle Eastern Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major

Incoming first-year and transfer students may be admitted as African and Middle Eastern Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students

Transfer applicants to the African and Middle Eastern Studies pre-major with 90 or more units must complete the following introductory 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.

Policies

Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Requirements

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 28, History 9D, 10B, 97F, 97J, Middle Eastern Studies M50CW, or Portuguese 40A, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 252, 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, Turkish Languages 102C, 112C, 116C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department.

The Major

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses.

Area Studies: (1) Three humanities and arts group 1 courses from Arabic M110, 120, C141, M151, Armenien 150A, C151, C152, C153, 160A, 160B, Art History 123A, C141, 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, 150B, Islamic Studies 151, Jewish Studies M142, M144, 151B, 175, Turkish Languages 160, 165, 180; (2) three social sciences group 1 courses from Anthropology 135, 166F, M166G, 167, Geography 130, 131A, 132A, 137C, 139C, 139D, 140, 155, 156, 157B, 158, M167C, 168B, 184D, Honors Collegium M157, 158; Political Science 132A, 151A, 151B, 153C, 157, 165; and (3) one additional elective course selected from either item 1 or 2 above.


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 1: Ancient Near East, 124, M130, 150B, C165, Arabic 130, 132, 150; Armenian 130, 131, C155, Art History M110A, 110B, 119A, French 160, Hebrew 130, 135, Iranian M110A, M110B, M110C, 120, 131, 140, Islamic Studies 130, Jewish Studies 140A, 140B, 143, M150A, 150B, M151A, 155, M182A, 182B, 182C, 184B, Turkish Languages 170, World Arts and Cultures C139 or social sciences group 2: Geography 135, History M103A, M103B, 105A, 105B, M106, 107A, 107D, 108A, 108B, 111A, 111B, 116A, 116B, 166A, 168A.

Honors Program

The honors program is designed to offer highly motivated majors the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Honors Program

Admission

To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements

Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an exceptional honors thesis (approximately 35 to 50 pages) determined to be of highest honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student. Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

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 inter-
national issues that they can then use to focus on particular concerns of that part of the world.

Study Abroad
Asian Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Capstone Major
The African Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

Learning Outcomes
The Asian Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Admission
To be eligible to declare the Asian Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as Asian Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the Asian Studies pre-major with 90 or more units must complete the following introductory courses prior to admission 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.

Policies
Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Requirements
Preparation for the Major

Required:

(1) International and Area Studies 1, 2, (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 118H), 97G, 97M, 97N, International Studies 1, Area Studies 133, Japanese 50, 70, 75, 80, Korean 40W, 50, M60, 70, 80, South Asian M60, Southeast Asian M20, 50, 70, or Vietnamese 40, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, M25, Geography 3, History 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, Farsi 6, Hindi-Urdu 100C, Indonesian 6, Japane se 6, Korean 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department.

The Major
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses.


Honors Program
The honors program is designed to offer highly motivated majors the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 196A, 198B, 198C—culminating in an honors thesis.
Policies

Preparation for the Major
Each course must be taken for a letter grade.

The Major
To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Honors Program
Admission
To enter the honors program, students must (1) 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.

European Studies BA
The European Studies major allows students to analyze the area or a subregion (e.g., Central and Eastern Europe, Mediterranean Europe, Scandinavia, Western Europe/European Union) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Capstone Major
The European Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

Study Abroad
European Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Learning Outcomes
The European Studies major has the following learning outcomes:

• In-depth analysis of a specific region or a thematic subject that spans regions
• Demonstrated critical understanding of issues relevant to a specific region or theme
• Demonstrated skills, including research, analysis, and writing
• Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
• Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
• Demonstrated proficiency at using peer feedback to enhance student's own work
• Effective communication of complex ideas in a seminar setting
• Demonstrated effective oral and written communication of research findings
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Admission
To be eligible to declare the European Studies major, students must have completed all non-language preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as European Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the European Studies pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies

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 50W), Slavic 90, Spanish 42, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, M25, Geography 3, History 2B, 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.

The Major
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses.


Honors Program

The honors program is designed to offer highly motivated majors the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Honors Program

Admission

To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements

Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, 198C, and (3) produce an 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.

Latin American Studies BA

The Latin American Studies major allows students to analyze the area or a subregion (e.g., Amazonia, Caribbean, Central America, South America, Southern Cone) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Study Abroad

Latin American Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Capstone Major

The Latin American Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their writing 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 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

Entry to the Major

Admission

To be eligible to declare the Latin American Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any
remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as Latin American Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the Latin American Studies pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from socio-cultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies
Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Requirements
Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from History 8A (or 8AH), 8B, 8C, 97E, International and Area Studies 50, Portuguese 40B, 46, Spanish 44, (3) two international politics and markets courses from 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.

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 as the distribution between humanities and arts and social sciences is maintained. They may be selected from either of the following lists: humanities and arts group 2: Art History CM139A, C139B, CM141, Chicana/o and Central American Studies M105D, M105E, 109, 142, Ethnomusicology M116, Portuguese 143A or social sciences group 2: Anthropology 114R, 114Q, Chicana/o and Central American Studies M118, M138B, 184, 187, History 157B.

Honors Program
The honors program is designed to offer highly motivated majors the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

Policies
Preparation for the Major
Each course must be taken for a letter grade.

The Major
To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Honors Program
Admission
To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to be the best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements
Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an exceptional honors thesis (approximately 35 to 50 pages) determined to be of highest honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

Undergraduate Minors

African and Middle Eastern Studies Minor
The African and Middle Eastern Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of the Africa and the Middle East from an interdisciplinary and modern perspective.

Study Abroad
African and Middle Eastern Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the globe. 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
African Studies Minor

The African Studies minor is designed for students who wish to augment their major with a wider perspective through study of the history, culture, and societies of Africa from an interdisciplinary and modern perspective.

Study Abroad

African Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year). Students may partially fulfill the area studies elective requirement by participating in an International 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.

East Asian Studies Minor

The East Asian Studies minor is designed for students who wish to augment their major with a wider perspective through study of the history, culture, and society of East Asia—China, Korea, and Japan—from an interdisciplinary and modern perspective.

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 Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from History 9D, 97F, or Middle Eastern Studies M50CW) 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 Arabic M110, 120, C141, M151, Armenian C151, C152, C153, Art History C120, Comparative Literature M148, M162, Ethnomusicology 161N (must be taken twice to equal one 4-unit course), Hebrew M113, C140, Iranian 141, 142, Islamic Studies 151, Jewish Studies M142, M144, 175, (2) two social sciences group 1 courses from Anthropology 135, M166Q, 167, History 105C, 107C, 109B, 111C, 167A, M184D, Honors Collegium M157, Political Science 132A, 157, 165, 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: 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, Iranian 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.
nal societies and cultures preparation requirement.


The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 116Q, Art History C148A, C148B, C148C, 152A, C152B, C152D, 154B, Asian American Studies 111, 113, 121, 122B, 130A, M130C, 131A, 131B, 131C, 132A, Chinese C175, M183, 186, 191A, History 152, 170A, 172B, Japanese 165, 172, 191A, Korean C150, 165, 180A, 180B, 184A, or 191A.

**Policies**

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in those courses. Successful completion of the minor is indicated on the transcript and diploma.

**European Studies Minor**

The European Studies minor is designed for students who wish to augment their major with an interdisciplinary study of the history, culture, and society of Europe from an interdiscipli

**Study Abroad**

European Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

**Admission**

To enter the minor, students must have an 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

**Study Abroad**

Latin American Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

**Admission**

To enter the minor, students must have an 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

**Policies**

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Latin American Studies Minor**

The Latin American Studies minor is designed for students who wish to augment their major with a concentrated study of the history, culture, and society of Latin America from an interdisciplinary and modern perspective.

**Study Abroad**

Latin American Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

**Admission**

To enter the minor, students must have an 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

**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.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Admission

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Art History 31, History 9A, 97N, or South Asian M60) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C154C, 154D, Asian History 151, 162, 163, Comparative Literature C178, Ethnomusicology 146, 147, South Asian 150, 155, (2) two social sciences group 1 courses from Asian American Studies 172C, Gender Studies M164A, History 174B, 174C, 175A, 175C, and (3) one additional elective course selected from the group list above or from the group list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 114P, 114Q, Art History CM139A, C139B, CM141, Chicana/o and Central American Studies M105D, M105E, 109, M11B, M142, M164B, 184, 185, 187, Ethnomusicology M116, History 157A, 157B, or Portuguese 143A.

Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

South Asian Studies Minor

The South Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of South Asia from an interdisciplinary and modern perspective.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Southeast Asian Studies Minor

The Southeast Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Southeast Asia—Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar (Burma), Philippines, Singapore, Thailand, and Vietnam—from an interdisciplinary and modern perspective.

Study Abroad

Southeast Asian Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Admission

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Art History 31, History 9A, 97N, or South Asian M60) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C154C, 154D, Asian History 151, 162, 163, Comparative Literature C178, Ethnomusicology 146, 147, South Asian 150, 155, (2) two social sciences group 1 courses from Asian American Studies 172C, Gender Studies M164A, History 174B, 174C, 175A, 175C, and (3) one additional elective course selected from the group list above or from the group list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 114P, 114Q, Art History CM139A, C139B, CM141, Chicana/o and Central American Studies M105D, M105E, 109, M11B, M142, M164B, 184, 185, 187, Ethnomusicology M116, History 157A, 157B, or Portuguese 143A.

Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
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: Art History 156, Asian American Studies 111, 113, 121, 122B, 133, 134, History 152, 176A, or Vietnamese 180A.

Policies
One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

International and Area Studies

Lower-Division Courses

1. Introduction to International and Area Studies. (5) Lecture, three hours; discussion, one hour. Introduction to international and area studies from interdisciplinary framework, covering themes related to international politics and markets, as well as international societies and cultures, to illuminate and clarify profoundly international character of world we live in and to introduce set of contemporary issues and challenges that cross borders and affect every region of world. 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 emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

MTA-M7B-M7C. Elementary Yoruba. (4–4–4) (Same as African American Studies M7A-M7B-M7C.) Lecture, five hours. Course M7A is requisite to M7B, which is requisite to M7C. Introduction to Yoruba, one of major languages of West Africa, which is spoken widely throughout southwest Nigeria, Benin, and Togo. Coverage of basic Yoruba grammar, with emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

10. Explorations in International Studies. (2) Lecture, two hours. Exploration of key international events through active learning, designed to develop understanding of international issues and diverse skill set, including sociocultural perspective, critical thinking, research skills, problem solving, teamwork, expository writing, and leadership skills. May be repeated for credit without limitation. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

31. Introduction to Southeast Asia. (5) Lecture, three hours; discussion (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.

40. Introduction to Europe. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Europe. P/NP or letter grading.

50. Introduction to Latin America. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Latin America. P/NP or letter grading.

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, papers, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HG. 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

110A-110B. Field Studies in International and Area Studies. (4–4) 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 ordinary citizens can build bridges between cultures. Letter grading.

111A. Art of Citizen Diplomacy. (2) Seminar, two hours. Examination of theory, tools, and practice of civic engagement. 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 of journal article. Letter grading.

121D. 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-sponsored 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 prerequisites: course 1. Limited to senior international and area studies majors. Organized on topics basis with readings, discussions, papers, and development of culminating project. May not 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 other non-profit setting coordinated by Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Students find an employer or sponsor and work with coordina- tor construct series of reading 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. Course 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 major 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.

INTERNATIONAL DEVELOPMENT STUDIES
Interdepartmental Program
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Patrick C. Heuveline, PhD (Sociology)
Michael F. Lofchie, PhD (Political Science)
Shaina S. Potts, 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.

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.

Capstone Major
The International Development Studies major is a designated capstone major. Seniors must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Students completing the capstone should be able to demonstrate skills and expertise acquired in earlier coursework; identify, analyze, and select relevant data from primary and secondary sources; acquire a working knowledge of broader scholarly discourse; conceive and execute an original research paper; and engage with a community of scholars, presenting their work to peers as well as providing feedback on peers’ work. The seminar culminates in a written paper or project and a formal class report.

Learning Outcomes
The International Development Studies major has the following learning outcomes:

- Demonstrated specific skills and expertise, including original research, data analysis, clear and cogent writing, and general knowledge/critique of 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 discourse
- Design of an original research project that identifies, engages, and addresses a focused problem
- Active engagement with a community of scholars by expressing viewpoints through robust and informed discourse

Entry to the Major
Admission
Admission to the International Development Studies major is by application only. To be eligible to apply, students must have first completed all nonlanguage preparation courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as International Development Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the International Development Studies pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two introductory macroeconomics, microeconomics, and/or economic geography courses; one statistics course; three courses, each from a separate category, selected from sociocultural anthropology, cultural or economic geography, cultural area studies, world history, comparative politics, and introductory sociology; and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Entry to the Major Policies
Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. The application period is once per year, and students must apply no later than the end of fall quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Requirements
Preparation for the Major
Required: (1) International Development Studies 1; (2) one course from Economics 1, 2, Geography 4, Public Affairs 30, or 40; (3) one methods course from Economics 41, Education 35, History 96W, Political Science 6, 6R, Public Affairs 60, Sociology 20, Statistics 10, or 12; (4) three social sciences/area studies courses, each from a different category, selected from (a) Anthropology 3, (b) Gender Studies 10, (c) Geography 3, 5, 6, (d) Global Studies 1, International and Area Studies 1, 31, 33, 50, (e) History 8A, 8B, 8C, 9A, 9B, 10B, 16BW, 11B, 12B, 12C, 22, (f) Political Science 20, 50, (g) Sociology 1, (h) Comparative Literature 4DW, Spanish 44; and (5) demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA.

The Major
Required: (1) Three core courses selected from International Development Studies 110, M120, 130, and 140; (2) capstone seminar course: International Development Studies 191; (3) one
research methodology course from Anthropology 138P, Asian American Studies 103, C142A, C142B, Chicana/o and Central American Studies M119, M122, 123, Economics 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, 153, International Development Studies 110 or M120 or 130 or 140 (if not taken under item 1), M150, Political Science 122A, M122B, 124A, 167D, 168, Public Affairs 110, Sociology 101, 102, M115, 122, 123, 182, 183, 191D, Urban Planning M110, M121, M160, CM166; (5) two regional courses, either from the same or separate 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, 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.


Honors Program

In addition to completing all courses required for the major, students must take courses 198A, 198B, and 198C, in which they research, write, and present an honors thesis.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

Each course must be taken for a letter grade. Students must earn a grade of C or better in International Development Studies 110, M120, 130, and 140; no more than one of these three courses may be repeated. All three core courses must be taken prior to the capstone senior seminar 191 course.

Honors Program

 Majors who have completed International Development Studies 110, M120, and 130 and who have a 3.5 grade-point average in all courses offered for the major are eligible to formally apply for the honors program.

To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

International Development Studies

Lower-Division Courses

1. Introduction to International Development Studies. (5) Lecture, three hours; discussion, one hour. Exploration of historical and contemporary context 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. Introduction to critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating most important political problem of our time—not just in U.S., but in other major countries as well. Concentration 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). Examination of one or more topics related to international development. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

188. Special Courses in International Development Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses on selected topics in international development

taught by visiting instructors or affiliated faculty.

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.
Individual study with lecture course instructor to explore
topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for
maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter
grading.

191. Variable Topics Research Seminars: Interna-
tional Development Studies—Senior Seminar. (4)
Seminar, three hours. Requisites: three courses from
110, 129B, 146. Limited to senior International Devel-
opment Studies majors. Organized on topics basis with readings, discussions, papers. May not be
repeated for credit. Letter grading.

192. Undergraduate Practicum in International Devel-
opment Studies. (2) Seminar, two hours; practicum,
to be arranged. Limited to juniors/seniors.
Training and supervised practicum for advanced un-
dergraduate students to serve as undergraduate course assistants in international development studies
courses. Students assist in preparation and presenta-
tion of materials and development of innovative pro-
grams with guidance of faculty members. Consult ac-
ademic counselor for further information. May not be
applied toward major requirements. May be repeated
for credit. P/NP grading.

193. Colloquia and Speaker Series. (1) Seminar, two
hours. Introduction to current scholarship in field of in-
ternational 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 Interna-
tional Development Studies. (4) Tutorial, to be ar-
ranged; fieldwork, 10 to 12 hours. Limited to juniors/
seniors. Supervised internship in corporate, commu-
nity, governmental, or nonprofit setting coordinated by
International Development Studies. Additional super-
vision to be provided by internship site supervisor. Students meet with adviser and provide final reports
of their experience. May be repeated for credit. Indi-
vidual contract with supervising faculty member re-
quired. P/NP grading.

198A-198B-198C. Honors Research in International Devel-
opment Studies. (4–4–4) Tutorial, to be ar-
ranged. Preparation: 3.5 grade-point average in courses for major, formal application to honors pro-
gram. Requisites: courses 110, 129B, 146. Limited to
junior/senior International Development Studies ma-
jors. May be repeated for credit. Individual contract re-
quired. 198A. Research, discussion, and planning of honors thesis under direct supervision of faculty
member. Letter grading. 198B. Enforced requisite: course 198A. Research, discussion, and planning of
honors thesis under direct supervision of faculty
member. In Progress grading. 198C. Enforced requi-
site: course 198B. Final drafting and submission of
honors thesis under direct supervision of faculty
member. Letter grading.

199. Directed Research in International Develop-
ment Studies. (4) Tutorial, to be arranged. Limited to
junior/senior International Development Studies ma-
jors. Supervised intensive directed research program
in which students conduct interdisciplinary research
under guidance of faculty mentor. Culminating paper
required. May be applied toward major via petition.
May not be repeated. Individual contract required.
Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inaria, to be arranged. Preparation: apprentice per-
personal employment as teaching assistant, associate,
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
ponsible 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 Faulstich Orellana, PhD (Education)
Roger Waldinger, PhD (Sociology)
J. Christopher Zapeda-Millán, PhD (Chicana/o and Central American Studies, Public Policy, Sociology)

Overview

International migration is a global phenome-
non—comprising broad and deep linkages
within and between the developed and devel-
op ing 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 mi-
grate and how migration might have an effect on
wages and employment in both sending and
receiving societies. However, migration is ulti-
mately about the lived experience of people—
those moving and those they encounter. Un-
derstanding 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 histori-
cal and cultural contexts surrounding both mi-
gration flows and societal responses.

Admission
Admission to the International Migration Studi-
ies minor is by application and is competitive,
using courses, grades, grade-point averages, and
personal statements as minimum stand-
ards for consideration. To better ensure that
they can be successful in their research, stu-
dents 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 automati-
cally accepted into the minor and only a limited
number of students are admitted each year.
Applications must be submitted no later than
spring quarter of the junior year.

The Minor

Required Upper-Division Courses (28 to 32
units): (1) one core course: Sociology 151 or
152; (2) four elective courses, from at least two
departments, selected from Asian American
Studies M130C, M166A, 167, Chicana/o and
Central American Studies 120, M124, M126,
164X, 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 the-
esis tutorial culminating in a thesis.

Students who take both core courses may ap-
ply the second course toward the elective
requirement.

This minor culminates in a thesis.

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 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 Transcultural 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
J. Christopher Zepeda-Millán, PhD, Chair

Faculty Committee
MayeI 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)
Gaye T. Johnson, PhD (Chicana/o and Central American Studies)

Kelly A. Lylte Hernández, PhD (History)
Sarah T. Roberts, PhD (Gender Studies, Information Studies)
Abel Valenzuela, Jr., PhD (Chicana/o and Central American Studies, Urban Planning)
Noah D. Zatz, JD, MA (Law)
J. Christopher Zepeda-Millán, PhD (Chicana/o and Central American Studies, Public Policy, Sociology)

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 workers and their communities. Labor studies also embraces the insights of critical race, ethnic, working class, and gender studies in order to understand work and social movements as a multidimensional site of study. Labor studies students gain a strong background in social scientific analysis and applied research, and have many opportunities for civic engagement. The program is intended for students who wish to gain an in-depth understanding of the broad array of issues related to labor, work, and social movements. Students are strongly encouraged to meet with a faculty and student coordinator, to create a pathway to graduation and to create a curriculum guide that consists of either a coherent integration of courses according to a thematic or topical investigation or, alternatively, a comprehensive survey of the main issues involved in the study of labor and social change.

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.

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

Entry to the Major
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.

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.

Requirements
Preparation for the Major
Required: Labor Studies 10 and two lower-division courses selected from African American Studies 1, M5, Asian American Studies 10, 20, 40, 50, Chicana/o and Central American Studies 10B, Gender Studies 10, Geography 4, History 2B, 8B, 12A, 12B, 12C, Honors Collegium 82, Political Science 60, Public Policy 10A, 10B, So-
The Major

Required Core Course (4 units): Labor Studies 101.

Required Elective Courses (24 units minimum):

Capstone Research and/or Community-Engaged/Internship Experience (8 units): During their senior year, students must complete research-intensive capstone courses, community-engaged/internship experiences, or a combination of both, selected from Labor Studies 191A, 194A, 194B, 195A, 195B, or an approved internship through the Center for Community Learning.

Policies

Preparation for the Major

Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor-related studies content.

The Major

Students may petition, prior to enrollment in the course, to apply other topical upper-division courses with substantial labor-related content.

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

Undergraduate Minor

Labor Studies Minor

The Labor Studies minor augments study in a traditional field. Students are required to complete both a departmental major and this minor. The faculty adviser certifies completion of the program.

Admission

To enter the minor, students must be in good academic standing, have a 2.5 grade-point average or better, have completed 45 units, and 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.


Capstone Research and/or Community-Engaged/Internship Experience (8 units): During their senior year, students must complete research-intensive capstone courses, community-engaged/internship experiences, or a combination of both, selected from Labor Studies 191A, 194A, 194B, 195A, 195B, or an approved internship through the Center for Community Learning.

Policies

Preparation for the Major

Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor-related studies content.

The Major

Students may petition, prior to enrollment in the course, to apply other topical upper-division courses with substantial labor-related content.

Each major course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Labor Studies

Lower-Division Courses

M1A-M1B-M1CW. Work, Labor, and Social Justice in U.S. (6–6–6) (Formerly numbered Labor and Workforce Studies M1A-M1B-M1CW.) (Same as Clusters M24A-M24B-M24CW.) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grade required. M1A-M1B. Lecture, three hours; discussion, two hours. Exploration of ways in which work has been transformed over last century, impact of this transformation on working people, and role of labor movement as force for social justice. M1CW. Special Topics. Seminar, three hours. Enforced requisite: course M1B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

10. Introduction to Labor and Workplace Studies. (Formerly numbered Labor and Workforce 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 labor studies through readings and other assignments at introductory level. 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.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for 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/sophomore students of current topics and participation in current research methods in labor studies through readings and other assignments at introductory level. 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.

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 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, social movements, and their role in labor and social issues in current intellectual context 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 has handled issues of class, race, ethnicity, gender, and immigration status; and challenges facing workers 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 per week; discussion, one hour (when scheduled). Intensive community-based work. P/NP or letter grading. Students connect with leaders of community organizations, student organizers, and prepare for more intensive community-based work. P/NP or letter grading.

M115. We Gone Be Alright: Developing Next Generation of Black Organizers. (4) (Same as African American Studies M115.) Seminar, four hours. Learning from and building on Black labor and community organizing traditions to develop skills and mindsets needed for transformative leadership. Students connect with leaders of community organizations, student organizers, and prepare for more intensive community-based work. P/NP or letter grading.

M116. Asian American Social Movements. (4) (Formerly numbered Labor and Workplace Studies M116.) Same as Asian American Studies M116.) Lecture, three hours. Designed for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement character, political and social vision, 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.

M117. Negotiation. (4) (Formerly numbered Labor and Workplace Studies M117.) Same as Communication M117.) Lecture, four hours. Art and science of ne-
program. Negotiation 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 identifying one’s own (and others’) communication style and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

M119. Asian American and Pacific Islander Labor Issues, (4) (Formerly numbered Labor and Workplace Studies M119.) Lecture, four 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 Perspectives and Oral Histories. (4) (Formerly numbered Labor and Workplace Studies M121.) Same as Chicana/o 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, methodological, and methodological 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 the causes and consequences 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 America. 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 Chicana/o 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 urban poverty. Letter grade and policies that enable vulnerable communities from developing to their potential. How to strengthen and to help communities in Pico-Union neighborhood in Los Angeles. Research entails historical analysis and surveys, interviews, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.

M123. Chicana/o Community Formation: Critical Perspectives and Oral Histories. (4) (Formerly numbered Labor and Workplace Studies M123.) Same as Chicana/o and Central American Studies M123.) Lecture, four hours. Analysis of history and development of Chicano/Latino communities in 20th century, with focus on labor, immigration, economic structures, electoral politics, and international dimensions. Letter grading.

M124. Future of Work in Decarcerated California. (4) (Same as African American Studies CM166.) Seminar, three hours. Limited to students in Community Scholars program. Exploration of scope of employment and migration opportunities in current system of mass incarceration in California, with focus on Los Angeles county. Study of history and evolution of carceral system and its relationship to oppression of Black people and other marginalized groups. Exploration of history of employment discrimination against Black workers and how successful demand for unionized government jobs (public sector work) evolved and fragmented. Investigation of work, especially by people of color, in existing carceral regimes, and its impact on individual worker wellness and community well-being. Examination of tension between groups that seek decarceration in California and those to prevent downward mobility of workers of color recruited by state to carry out failed policies of war on drugs. P/NP or letter grading.

M125. U.S./Mexico Relations. (4) (Formerly numbered Labor and Workplace Studies M125.) Same as Chicana/o 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. Letter grading.

M126. Farm Worker Transnational Struggle. (4) (Formerly numbered Labor and Workplace Studies 126,) Lecture, three hours; discussion, one hour. Focus on history and contemporary issues farm workers face in restructured economy, and class, racial, and gender dynamics that shape their work experiences and economic and political opportunities in society at large. Study of historical and contemporary class conflicts in workplace and during collective struggles for equality in contemporary society. Topics include political and cultural legacy of farm workers’ struggle in U.S. and its long-term impact on Mexican and Salvadorean farm workers and farm workers’ social justice movements. Special focus on assessing and understanding role farm worker-led labor and civil rights movements have had in promoting new economic strategies and workplace and economic justice from cross-border perspective. Students develop theoretical and practical understanding of farm workers’ experiences across national boundaries. Tracing of role 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 Chicana/o and Central American Studies M127.) Lecture, four hours. Designed for juniors/secons. Historical and social context of farmworker organizing, including its multiracial origins and its influence on fight for equality of working women. Specific focus on organizing of United Farm Workers and Farm Laborers Organizing Committee, and their relationship to AFL-CIO. Focus on their influence on Chicano Movement. Letter grading.

M128. Race, Gender, and U.S. Labor. (4) (Formerly numbered Labor and Workplace Studies M128.) Same as Chicana/o and Central American Studies M128.) Lecture, four hours. Designed for juniors/secons. Introduction to history and 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.

M134XP. Engaging Immigrants and Their Families. (4) (Formerly Chicana/o and Central American Studies M134XP and Community Engagement and Social Change M134XP.) Lecture, two hours; discussion, two hours; field placement; two Labor and Workplace Studies Internships. Focus on engaging of immigrant and immigrant 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 and community context. Students contribute place in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

M136. Working Families and Educational Inequalities in Urban Schools. (4) (Formerly numbered Labor and Workplace Studies M136.) Seminar, three hours; fieldwork, five hours. Exploration of complex relationship between working-class and poor communities in American urban schools. Drawing on multiple disciplinary frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment and divergent conceptual frameworks that educational researchers have used to understand notion of inequality, access to quality public education, and how race, ethnicity, and class affect students’ educational experiences for working communities. Look inside schools through community service learning opportunity to examine systems, structures, and everyday practices that sustain and reproduce inequality and policies that remedied educational inequalities in urban schools. Opportunity to investigate issues of working-class families and inequalities as they relate to students’ own communities. P/NP or letter grading.

M140. Working It: Women, Work, and Family. (4) (Formerly numbered Labor and Workplace Studies 140.) Lecture, three hours; discussion, one hour. Examination of working women in U.S. history from 19th-century midwives to 21st-century sex workers through film, oral history, and traditional forms of scholarship. Exploration of personal and work life of women from variety of intersectional categories including class, race, ethnicity, sexuality, and immigrant status with focus on systems that have shaped workplace experiences for women over time, including gender discrimination, sexual harassment, unionization, and reproductive health. Special attention given to strategies women have utilized to shape their work experience, and to improve working conditions for themselves and their working-class sisters. P/NP or letter grading.

M143. Class and Gender in Care Work. (4) (Same as Asian American Studies M162, Chicana/o and Central American Studies M128B, and Gender Studies M140C.) Lecture, three hours; discussion, one hour. Examination of how gender, race, class, and citizenship status shape domestic labor in U.S. Examination of domestic workers experience through film, fiction, and oral history. Traditional labor movements and many domestic work is in high demand, who employs domestic workers, and why immigrants and women of color make up largest percentage of this workforce. Examination of how domestic work has changed labor market and working conditions, and how they build community and family networks in shadows of their privileged employers. P/NP or letter grading.

M144. Women’s Movement in Latin America. (4) (Formerly numbered Labor and Workplace Studies M144.) (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 those to prevent downward mobility of women who 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 challenge traditional ways of thinking about 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.

M149. Media: Gender, Race, Class, and Sexuality. (4) (Formerly numbered Labor and Workplace Studies M149.) (Same as Communication M149 and Gender Studies M149.) Lecture; four hours, activity, one hour. Limited to junior/senior Communication and Gender Studies 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 work, gender, bisexuality, heterosexuality, 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, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.
152. Work, Social Justice, and Arts. (4) Formerly numbered Labor and Workplace Studies 152.) Lecture, three hours; field visit. Analysis of how art (in cartoon, poster art, murals, photography, film, visual art, theater, performance, dance, and music) has been influential in historical movements for economic justice and social justice by artists, workers’ groups, American labor movement and other social movements such as civil rights, women’s rights, immigrant rights, and LGBTQ+ rights. Reflection on different courses of art-making that have been used in specific historical struggles (1920s, Great Depression of 1930s, 1960s, to present). Examination of what Los Angeles workers have done in terms of art, labor, and social justice movement art-making. Students visit labor, social justice, or arts organization in LA, that is focused on themes of work, labor, and art. Exploration of spectrum of art forms (dance, music, sculpture, theater, visual art, film, museum curation) that have been produced 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 America. (4) Formerly numbered Labor and Workplace Studies 153.) Lecture, three hours. Exploration of working narratives. Investigation of how working-class Americans from diverse backgrounds have narrated their struggles with poverty, education, work, parenthood, bodily suffering, and what readers learn from these struggles as students, writers, and activists. Emphasis on 21st-century narratives. Analysis of variety of genres, including poetry, lyrics, short stories, journalism, reportage, novels, memoir, and autobiography, for how they portray working class people and what they offer working class movement culture. Consideration of class as intersectional category of experience along with race, gender, and sexuality. Students read narratives about class and work, and contribute to body of working class literature through memoir, fiction, poetry, or journalism. P/NP or letter grading.

M165. Sociology of Race and Labor. (Formerly numbered Labor and Workplace Studies M165.) (Same as African American Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Exploration of relationship between race/ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of how race/ethnic differences under which workers live 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, the strengths and weaknesses of these movements, and what they offer working class movement culture. Examination of how different race/ethnic groups have organized their wages and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (Formerly numbered Labor and Workplace Studies M166A) (Same as Asian American Studies M166A and Chicana/o and Central American Studies M165A.) Lecture, three hours; discussion, one hour. New immigrant movements, 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 locally and nationally. 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 immigration and immigrant rights, write poetry and spoken word about immigrant experience, and work to collectively develop students and undocumented students in higher education. P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (Formerly numbered Labor and Workplace Studies M166B) (Same as Asian American Studies M166B and Chicano/a and Central American Studies M165B.) Seminar, two hours. Requisite: course M166A. Expansion of research conducted by students in course M166A involving immigration research on immigrant/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M166C. Research on Immigrant Students and Higher Education. (Formerly numbered Labor and Workplace Studies M166C.) (Same as Asian American Studies M166C and Chicano/a and Central American Studies M165C.) Seminar, three hours. Enforced requisites: courses M166A, M166B. Expansion of research conducted by students in courses M166A and M166B. Research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.


168. Law and Politics of Immigration: Migrants and Inevitable Evolutions 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 in- troduction to inevitable evolution of law and policy result- ing from—and in reaction to—movement of immi- grants. Endows students with wide array of analytical tools with which to shape and develop narratives and debates about immigration. Using historical and modern texts, while incorporating elements of art, popular culture, and storytelling, study encourages discussion, de- bate, and analysis about immigrants’ role in develop- ment of rights and modern political debates about im- migration. Exploration of themes of inclusion, exclu- sion, integration, and multiculturalism. Students describe shortcomings of status-quo policies while also imaging and prescribing arguments about where law can and should go. P/NP or letter grading.

M170. Improving Worker Health: Social Movements, Policies, and Inequality. (Formerly numbered Labor and Workplace Studies M170.) (Same as Community Health Sciences CM170.) Lecture, three hours; fieldwork, two hours. Examination of intersection between health and environment, analysis of social causes of health disparities, investiga- tion of historical trends and social movements, in- terpretation of current policy debates, and develop- ment of innovative interventions. P/NP or letter grading.

M171. Labor and Economic Development. (Formerly numbered Labor and Workplace Studies M171.) (Same as Urban Planning CM172.) Lecture, three hours. Historical and contemporary development and identification of ways that labor and labor unions di- rectly and indirectly influence and shape economic development. Wide range of roles that labor plays, and could play, in promoting and supporting eco- nomic development for all. Letter grading.

M173. Nonviolence and Social Movements. (4) Formerly numbered Labor and Workplace Studies M173.) (Same as African American Studies M173 and Chicano/a and Central American 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 fictional works, films, read- ings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonvi- olent action throughout recent U.S. history. Examination of political implications 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 in such basic issues as dem- onstration rights and modern political debates about im- migration, right-to-work legislation; dismantling of public sector unions; and racism, sexism, and anti-immigrant sentiment. Emphasis on case studies. Topics include new trends in labor organization. Offers mix of guest speakers, oral history, case examples, scholarly articles, news articles and blogs, videos, small-group work, and community engage- ment. 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 agi- tation; agitator as force for change in existing institu- tions and policies in democratic society. Intensive study of selected agitational movements and tech- nique and content of their communications. Letter grading.

M176. Visual Communication and Social Advocacy. (Formerly numbered Labor and Workplace Studies M176.) (Formerly numbered Labor and Workplace Studies M176.) Lecture and Studio, seven hours. Focus on role of spirituality and mindfulness practice in labor and immigrant rights movements. Focus on teachings of St. Francis of Assisi, Mahatma Gandhi, Martin Luther King Jr., and Thich Nhat Hanh. Students practice and study, using case studies and workshops exercises. Includes video and guest lectures by scholars and activists who integrate their spirituality into their daily work. P/NP or letter grading.

177. Spirituality, Mindfulness, Self-Care, and Social Justice. (Formerly numbered Labor and Workplace Studies CM177.) Seminar, four hours. Focus on role of spiritu- ality and mindfulness practice in labor and immigrant rights movements. Focus on teachings of St. Francis of Assisi, Mahatma Gandhi, Martin Luther King Jr., and Thich Nhat Hanh. Students practice and study, using case studies and workshops exercises. Includes video and guest lectures by scholars and activists who integrate their spirituality into their daily work. P/NP or letter grading.

179A. Neoliberalism, Social Justice, and Community Organizing. (Formerly numbered Labor and Workplace Studies 179A.) Lecture, three hours. Study of neoliberalism, its consequences, 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 outcomes and important envelopes of contemporary politics. Focus on understanding and explaining de- velopment and current structures of neoliberalism as both ideological framework and form of governance. Ex- amination 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 in U.S. since 1980 has undermined democratic governance and produced conditions that have deepened levels of inequality. Examination of emergence of grassroots politics that have organized around issues that challenge or contest neoliberal democratic regimes, and possibilities for organizing for dem- ocratic inclusion through their struggles for social change. P/NP or letter grading.

179B. Doing Democracy: Social Movements, Grassroots Politics, and Community Organizing. (Formerly numbered Labor and Workplace Studies 179B.) Lecture, three hours. Focus on community or- ganizing and social movements as mechanisms that have been adopted by marginalized or excluded sec- tors of society to articulate their interests and express their needs. Identification of fundamental characteristics of effective and responsive democratic regime. Summarization of critiques that describe neoliberalism as that which those who are under- mined in current period. Focus on those efforts to pro- mote social justice as basis for inclusive and respon- sive form of popular sovereignty through politics of so- cial movements and community organizing. Study of
various forms of social movements and different models of and approaches to community organizing and their relationship to democratic governance. P/NP or letter grading.

M180. Southern California Regional Economy. (4) [Formerly numbered Labor and Workplace Studies M180.] Seminar, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of conflicting portrayals of region, including large and small-scale stories. May be repeated for credit. Offered in summer only. P/NP or letter grading.

M190B. Community-Engaged Research in Practice Course. (4) [Formerly numbered Labor and Social Science Research Program. (4)] Seminar, three hours. Requisite: course M190A. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Students meet regularly with graduate students and key academic experts about emerging organizing models, best practices, and challenges facing current organizing. Students meet with key community leaders to discuss organizing efforts and neighborhood organizing. Key outcomes may include production of policy reports, popular education materials, and book publication by UCLA Labor Center and collaborators. Focus on engaging policy makers and other change agents. P/NP or letter grading.

M190C. Community-Engaged Research in Practice Course. (4) [Formerly numbered Labor and Social Science Research Program. (4)] 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 challenges facing current organizing. Students meet with key community leaders to discuss organizing efforts and neighborhood organizing. Key outcomes may include production of policy reports, popular education materials, and book publication by UCLA Labor Center and collaborators. Focus on engaging policy makers and other change agents. P/NP or letter grading.

181. Los Angeles Labor and Social Science Research Program. (Formerly numbered Labor and Workplace Studies M181.) Lecture, three hours. Introduction to basic social science research methods. Through combination of lectures, key readings, and participation in hand-on research project, students develop understanding of critical debates regarding role of research in socio-economic 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 M194B.] 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 methods and student’s own research. 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 a research group in Applied 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.

195A. Community or Corporate Internships in Labor and Workplace Studies. (4) [Formerly numbered Labor and Workplace Studies M195A.]Tutorial, one hour; fieldwork, 15 hours. Enforced corequisite: course 194A. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

195B. Community or Corporate Internships in Labor and Workplace Studies. (2 to 5) [Formerly numbered Labor and Workplace Studies M195B.] Tutorial, to be arranged; internship, up to 15 hours. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

195CE. Worker and Community Organizing for Social Change: Research Justice Internship. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Students will intensively work on organizing for social change. Preparation of artifacts that support organization’s mission and student’s intellectual development. Students meet regularly with graduate student instructor to reflect on internship experience, assigned readings, and reflective writing assignments. Students complete final paper that links research and experience. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. Letter grading.

199. Directed Research in Labor and Workplace Studies. (2 to 4) [Formerly numbered Labor and Workplace Studies M199.] Seminar, three hours. Designed for graduate students who are part of Labor Summer Research Program. Course 194C. Individual contract with supervising faculty member required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) [Formerly numbered Labor and Workplace Studies M375.] Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
Latin American Studies

Interdepartmental Program
College of Letters and Science

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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.

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 America Studies core course.)

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University’s cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.

M260. Health and Culture in Americas. (4) Same as Anthropology M233Q and Community Health Sciences M264.) Lecture, three hours. Examination of role of public health aspects, including epidemiology, comorbidity concerns and community interventions, medical anthropological study of experience of those impacted, and grass-roots responses, as well as political/eco- nomic context addressing poverty and structural violence. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) Same as Anthropology M233Q and Community Health Sciences M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiocassette. Letter grading.

M268A-M268B. Seminars: Recent Latin American History. (4) Same as History M268A-M268B.) Seminar, three hours. Course M268A is requisite to M268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

291A-291B. Variable Topics in Latin American Studies. (4-4) Seminar, three hours. Selected topics on Latin America. May be repeated for credit with topic change. S/U or letter grading.

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.

Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated, but only 4 units may be applied toward the minimum graduate course requirement. S/U or letter grading.

Preparation for MA Comprehensive Examination. (4) Tutorial, to be arranged. Ordinarily taken only during term in which student is being examined. S/U grading.

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.

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Alicia Virani, JD, MA
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Overview
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 Juridical Science program, how to apply, and requirements is available on the school website.

Juris Doctor

Information about the Juris Doctor program, how to apply, and requirements is available on the school website.

Concurrent Degree Programs

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

- Juris Doctor/African American Studies MA
- Juris Doctor/Asian American 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 Policy
- Juris Doctor/Master of Social Welfare
- Juris Doctor/Master of Urban and Regional Planning
- Juris Doctor/Philosophy PhD

Master of Legal Studies

Information about the Master of Legal Studies program, how to apply, and requirements is available on the school website.

Master of Legal Studies

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Graduate 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 history of consumer bankruptcy policy, such as when debtors should be released from debts, what property debtors should keep, and how debtors can put together their payment plans. P/NP or letter grading.


170. Race and Racism in California Legal History, 1846 to Present. (4) Seminar, 14 hours. Limited to freshmen/sophomores. Exploration of California legal history, with focus on issues of race and racism, beginning with mid-19th-century transition from Mexican Alta California to U.S. territory and statehood. Topics include state measures affecting California Indians in 19th century, African-Americans in California’s 19th-century history, measures used to curtail Chinese immigration and laws to prevent racial intermarriage. Alien Land Laws aimed at Japanese residents of California, relocation of Japanese Americans after Pearl Harbor, California’s response to U.S. immigrants from dust bowl during Great Depression, and World War II through 1960s measures aimed at equal access to things like home ownership, employment, and rental housing, and laws of initiative in modern era. P/NP or letter grading.

173. Topics in American Constitutional History. (4) Lecture, three hours. Introduction to major themes, events, and cases in American constitutional history. U.S. Supreme Court decisions and other sources of constitutional meaning, including popular movements and expressions of constitutionalism from actors in other branches of federal government and in states. Emphasis on historical background and ideological context for particular constitutional controversies at various points in American history, with more formal analysis of particular decisions and competing methods of constitutional interpretation considered. Topics include origins of judicial review, debates over meaning of federalism in early republic, slavery and constitution, Reconstruction Amendments, laissez-faire constitutionalism, citizenship and empire, origins of civil liberties, New Deal constitutionalism, and prehistory of Brown versus Board of Education. P/NP or letter grading.

175. Seminar: Individual Rights Protected by U.S. Constitution. (3) Seminar, two hours. Limited to juniors/seniors. 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.

182. Law and Popular Culture. (4) Lecture, four hours. Focus on interface between two important subjects—law and popular culture. Students view series of films or television shows related to law, law school system. Discussion of pop culture treatment of subjects such as adversary system, good and bad lawyers, female lawyers, lawyers from lesbians, gay, bisexual, and transgender community, minority lawyers, work life of lawyers, legal education, ethical issues, jury system, and criminal and civil justice, drawing on film theory and filmmaking techniques to deepen understanding of law and popular culture. Illumination of ways in which pop culture products both reflect and change social views about law and lawyers. Offered in summer only. P/NP or letter grading.

183. Law and Order. (2) Lecture, two hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

184. Introduction to Legal Education. (4) Lecture, four hours. Preliminary introduction to legal pedagogy and overview of American legal system. Analysis of appellate and U.S. Supreme Court cases and legislative materials to develop foundational law school skills and become familiar with principles of both scholarly and practice-oriented legal analysis. Topics include introduction to case analysis, reading cases, exploring precedent and stare decisis, separation of powers, and statutory interpretation. P/NP or letter grading.

185. Corporate Mock Trial. (4) Lecture, four hours. Introduction to basic principles of business law, such as how law applies to various business entities, duties and liabilities of corporate officers and directors, and shareholders’ derivative suits. American legal system and how litigation progresses from filing of complaints through trial. Students participate in mock trial at end of course. P/NP or letter grading.

186. Law and Order. (4) Lecture, four hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.
Overview

Although the initial focus in lesbian, gay, bisexual, transgender, and queer (LGBTQ) studies is on minority sexualities and transgener-<ref></ref>ism, it is impossible to study them in any meaningful way without raising questions about gender, race, ethnicity, economics, class, globalization, and the construction of scientific knowledge. Thus lesbian, gay, bisexual, transgender, and queer studies, which may at first seem to concern the private practices of a small number of people, inevitably leads to the much larger study of sexuality and culture. The Lesbian, Gay, Bisexual, Transgender, and Queer Studies program represents an important vantage point from which to investigate the social construction of sexual identity, social control of behavior, changing definitions of the family, and the place of sexual and gender expression in the public and private spheres. Because of the kinds of questions asked, LGBTQ studies is the site of some of the most exciting work being done today on the relationship between sexuality and culture.

Undergraduate Minor

Lesbian, Gay, Bisexual, Transgender, and Queer Studies Minor

The minor in Lesbian, Gay, Bisexual, Transgender, and Queer Studies offers students the oppor<ref></reftunity to study sexuality from a variety of cultural and disciplinary perspectives and 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 services adviser, who can help them plan their course of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Lesbian, Gay, Bisexual, Transgender, and Queer Studies

Lower-Division Courses

19. 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-divi-<ref></refsion 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.
M101A. Premodern Queer Literatures and Cultures. (8) (Same as English M101A and Gender Studies M105A.) Lecture; four hours; discussion; one hour (when scheduled), Enforced requisite: English Composition 3. Survey of discrete period of queer literature from before to circa 1850. Works by such writers as Sarah Waters,磊打削, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105B. Southern Queer Literatures and Cultures. (4) (Same as English M105B and Gender Studies M105B.) Lecture; four hours; discussion; one hour (when scheduled), Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walter Whitman,磊打削, Hall, Ger-trude Stein, Virginia Woolf, Langston Hughes, Ten-nessie Williams, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105C. Queer Literatures and Cultures after 1970. (5) (Same as English M101C and Gender Studies M105C.) Lecture, four hours; discussion; one hour (when scheduled), Enforced requisite: English Composition 3. Examination of cultural production, specifically literature, produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origination or beginning of modern lesbian and gay rights movement in U.S. Readings and films by such authors as Andrew Holleran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Lisa Denson, and Alix Scox. Baldwin 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 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.

M107B. Studies in Gender and Sexuality. (5) (Same as English M107B and Gender 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 topic emphasis, may be history, literature, philosophy, sociology, or music. Baldwin may be included. 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. Discussion of politics, culture, and social con- text of lesbian studies, gay men, bisexuals, trans- gendered, and queer people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.
nity to work in LGBTQ-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.

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. Topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

170. Queer Cultures after Stonewall: Sexual Differ- ence, Performance, and Community in 1970s. (5) 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 literature and performing arts through formal and thematic analysis, exploration of social contexts of creation and reception, and wide-ranging interpretive study. No extensive training in literary, musical, visual, or media analysis is required; conceptual and analytical frameworks to be used are provided. P/NP or letter grading.

180XP. Lesbian, Gay, Bisexual, and Transgender In- stitutions and Organizations. (Formerly numbered 180SL.) Lecture, three hours; fieldwork, five hours. Preparation: one prior lesbian, gay, bisexual, and transgender studies course. Service-learning course that offers opportunity for students to work in lesbian, gay, bisexual, and transgender-related community organizations, to reflect on political and theoretical issues involved in such work and such organizations, and to draw ideas from various courses they have already taken and test them in settings outside UCLA. P/NP or letter grading.

181. Variable Topics in Queer Diversities. (4) Le- cture, four hours. Study of topics about queer diversities from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

182. Variable Topics in Education, Law, and Public Policy. (4) Lecture, four hours. Study of topics of education, law, and public policy topics from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

183. Variable Topics in Queer Subjectivities/Theo- ries/History. (4) Lecture, four hours. Study of topics about queer subjectivities/theories/history from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

184. Variable Topics in Science, Health, and Genet- ics. (4) Lecture, four hours. Study of science, health, and genetics topics from lesbian, gay, bisexual, and transgender studies perspective. May be repeated for credit with consent of instructor. P/NP or letter grading.

187. Selected Topics in Lesbian, Gay, Bisexual, and Transgender Studies. (4) Lecture, four hours. Study of selected topics in lesbian, gay, bisexual, and transgender studies. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M191D. Topics in Queer Literatures and Cultures. (5) (Same as English M191D and Gender Studies M191D.) Seminar, three or four hours. Enforced requisites: English Composition 3. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191E. Topics in Gender and Sexuality. (5) (Same as English M191E and Gender 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/NP or letter grading.

194. Research Group or Internship Seminars: Les- bian, Gay, Bisexual, and Transgender Studies. (2) Seminar, two hours. Preparation: completion of four courses toward minor. Requisite: course M114. Core- quisite: course 195. Designed for seniors who are doing internship in lesbian, gay, bisexual, or transgender organization. Discussion of organization 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 or letter grading.

195. Community or Corporate Internships in Lesbi- an, Gay, Bisexual, and Transgender Studies. (2 to 4) Tu- torial, one hour. Preparation: completion of four courses toward minor. Requisite: course M114. Core- quisite: course 194. Limited to seniors. Internship in supervised setting in lesbian, gay, bisexual, or transgender community organization. May be repeated for credit with topic or instructor change. P/NP or letter grading.

197. Individual Studies in Lesbian, Gay, Bisexual, and Transgender Studies. (2 to 4) Tutorial, one hour. Requisite: course M114. Limited to juniors/seniors. Di- rected program of independent study or research on specific topic within lesbian, gay, bisexual, and transgender studies, 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. 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
Overview

Students who wish to study life sciences have a choice of eight majors, all of which lead to a Bachelor of Science (BS) degree: Biology; Ecology, Behavior, and Evolution; and Marine Biology (Ecology and Evolutionary Biology Department); Microbiology, Immunology, and Molecular Genetics (Microbiology, Immunology, and Molecular Genetics Department); Molecular, Cell, and Developmental Biology (Molecular, Cell, and Developmental Biology Department); Neuroscience (Neuroscience Interdepartmental Program); Physiological Science (Integrative Biology and Physiology Department); and Psychobiology (Psychology Department). This choice reflects the diversity of undergraduate instruction in life sciences at UCLA. Despite this diversity, all of these majors require a common core of introductory courses that forms the foundation for any study of life sciences and that is required for more advanced courses in each major. The common core includes courses in chemistry, physics, and mathematics, as well as introductory courses in evolution and biodiversity, cellular and organismal biology, molecular biology, and genetics. During the first two years, students may also gain experience in a research laboratory through the Student Research Program. For more information on each major, see the individual departments in this chapter. For additional information on the Life Sciences core curriculum, see the curriculum website.

Students considering one of the life sciences majors are encouraged to declare a major as early as possible, even in their first year. In this way, they are identified by the life sciences advising offices and receive important curricular and other information. Because the core curriculum prepares them for any of the eight majors, they have the flexibility to switch to another life sciences major at any time during their progression through the core curriculum. Note: The Marine Biology and Psychobiology majors may require some courses in addition to the life sciences core curriculum as part of the preparation. Consult the course requirements for both majors.

Undergraduate Study

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L, 107; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4A, and 4B, 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 Upal 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 learn biological research techniques early in their educational careers and within a structured institutional environment. Students devote 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—
15L. Life: Concepts and Issues Laboratory. (1) Laboratory, two hours. Required 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 areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Quantitative Concepts for Life Sciences. (5) Lecture, one hour; 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. Pre requisites: courses 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 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 modeling as tool for understanding biological systems. Fundamental concepts of single-variable calculus and development of single- and multi-variable differential equations and 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. Required: course 30A. Introduction to concept of matrices and linear transformations to equip students with some basic tools to understand dynamics of multivariable nonlinear systems. Examples from ecological, physiological, chemical, and other systems. Letter grading.

M32. Essential Calculus for Mathematical Biologists. (4) Same as Computational and Systems Biology 32. Lecture, two hours; laboratory, 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 essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor’s formula, vector and matrix analysis, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.

40. Statistics for Biological Systems. (5) Lecture, three hours; laboratory, two hours. Required: course 30A. Designed for life sciences students. Introduction to statistics with emphasis on computer simulation of chance-probability and traditional formula-based approach. Simulations allow for deeper understanding of statistical concepts, and are applicable to wider class of distributions and estimators. Students learn statistical language and 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. Credit 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.

98H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Life Sciences. (1 to 4) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

96X. Undergraduate Research. (1) Tutorial or seminar, one to two hours. Credit awarded for life sciences laboratory designed for undergraduate students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of peer tutor. 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.

Under-Division Courses

101. Understanding Scientific Literature and Context. (2 to 4) Seminar/discussion, one to two hours. Introduction to set of skills proven to help students read and understand scientific research papers. Offers opportunity to practice those skills while interacting with scientists at UCLA. Reading and understanding scientific research papers is skill. It can develop quickly and be refined/practiced for rest of scientific journey. Uses CREATE learning framework, Consider, Read, Elucidate hypotheses, Analyze and interpret data, and Think of next experiment. At UCLA, CREATES! uses additional dimensions of final Synthesis and Social context. Students work within learning pod and are guided by lead instructors. P/NP or letter grading.

107. Genetics. (5) Lecture, three hours; discussion, seven and one-half minutes. Requisites: courses 7C, 23L, Chemistry 14A (or 20A), 14C (or 30A). Designed for life scientists laboratory. Credit of course 107, but only 1 unit may be applied toward graduation. P/NP grading.

109. Career Exploration in Life Sciences. (2) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

110. Career Exploration in Life Sciences. (2) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

130. Science Classroom Observation and Participation. (1) Seminar, one hour. Preparation: completion of three mathematics and/or science courses at level required of science majors. Observation, participation, and
factors create differential quality and access to health care resulting in poor health outcomes in racial/ethnic minorities. Basic foundation for critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences as they relate to race and ethnicity population. May be repeated for credit. S/U grading.

188AS. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188BB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188AS. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to facilitate USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, discussions, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M192A. Introduction to Collaborative Learning Theory and Practice. (1) Formerly numbered 192A. (Same as Chemistry M192E, Computer Science M192A, Mathematics 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 theory in their practical application in small-group settings. Students practice communication 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, nine hours. Required: 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. May be repeated for credit. S/U grading.

192C. Methods and Application of Collaborative Learning Theory in Life Sciences. (4) Seminar, three hours; clinic, nine hours. Required: 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. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated 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. (2) Seminar, three hours; clinic, three hours. Required: 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. 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. (1) Seminar, one hour; clinic, two hours. Required: 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. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192F. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours; clinic, nine hours. Required: from one course from 1, 2, 3, 4, 7A, 7B, 7C, 20, 23L, 30A, 30B, 107, 110. Limited to sophomores/juniors/seniors. Clinical training for undergraduate students. Under guidance of faculty members, students refine their professional skills and take leadership roles in mentoring students. May be repeated for credit. Letter grading.

192G. Collaborative Learning Theory and Practice: Anti-Racism Discourse. (1) Seminar, two hours; discussion, one hour. Students engage in anti-racism discourse. Peers circulate through, engage, and reflect on various topics that target systemic racism surrounding our communities through proactive small-group conversation and weekly action plans. Peers practice communication skills with frequent assessment and feedback with facilitators. May be repeated three times for credit. Letter grading.

199. Directed Research or Senior Project in Life Sciences. (2) Tutorial, two hours. Enforced requisite: course 3. Limited to juniors/seniors. Supervised individual research investigation under guidance of faculty mentor. Culminating paper/project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel in employment as teaching assistant, associate, or fellow. Teaching apprentice to actively practice guidance and supervision of regular faculty members. Responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for College-Level Teaching in Life Sciences. (2) Seminar, two hours. Corequisite: course 375. Designed for graduate students who are teaching assistants in Life Sciences Core Curriculum for first time and to be taken concurrently in term in which they teach. Prepares students for college-level teaching in large enrollment undergraduate courses, and provides professional development to support students pursuing diverse careers in life sciences. Study of inclusive, student-centered, and evidence-based teaching methodologies that include active learning, group work, formative assessment, backward course design, and reflective teaching practices that incorporate peer observations and constructive feedback. May not be repeated for credit. S/U grading.

LINGUISTICS
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Overview

The goal of the Department of Linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. It is important for prospective students to understand that studying linguistics is not a matter of learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology, morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonetics, phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social sciences areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject. Hence, the courses provide a variety of approaches that reflect the diversity of the field.

The Linguistics Department has consistently been ranked among the very best linguistics departments in the country. It offers programs leading to the Bachelor of Arts (BA), Master of Arts (MA), and Doctor of Philosophy (PhD) degrees.

Undergraduate Study

The undergraduate majors are of three types: (1) a major that concentrates entirely on general linguistics, (2) several majors that combine the basic courses of the general program with a language concentration or other related fields, and (3) a major in Applied Linguistics.

Graduate Study

The department offers MA and PhD degree programs in Linguistics, and its faculty participate in the programs for American Indian Studies, Computer Science, International Institute, Philosophy, and Psychology. Both the faculty and graduate program are internationally acclaimed, and attract some of the best and brightest graduate students from this country and abroad, with a current graduate student population of 40 students from 10 countries.

The goal of the department’s graduate program is to train students as university teachers and as researchers in the major areas of linguistics.

Theoretical Orientation

The Linguistics Department has a strong theoretical orientation committed to research in formal linguistic theory, addressing questions in the fields of phonetics, phonology, morphology, syntax, and semantics, and at the interfaces of these fields with the fields of psycholinguistics, computational linguistics, mathematical linguistics, historical linguistics, and the linguistic study of particular language areas (especially African languages and 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

Entry to the Major

Transfer Students

Transfer applicants to the Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics 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.

Requirements

Preparation for the Major

Required: Linguistics 10; two of the following: Anthropology 4, Philosophy 31, Psychology 10 (or 100A); completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major

Required: Eleven upper-division or graduate courses including Linguistics 103, 120A, 120B, 120C, two courses from 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).

Honor 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.

Policies

Preparation for the Major

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).
The Major
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 under-graduate student affairs officer.

A 2.0 grade-point average in linguistics courses is required for the major.

Applied Linguistics BA
The Applied Linguistics major investigates linguistic issues relevant to the everyday world, shedding light on the nature of language and language use. Students will learn linguistic theory, the study of the structure of human language generally. With its focus on service learning, students will also learn linguistic practice, engaging in the community, schools, and work places of our geographic setting. Successful graduates will be well acquainted with language use from a variety of perspectives and experiences, and will be able to apply this knowledge to a wide variety of practices including language teaching, speech pathology, and translation and interpretation.

Learning Outcomes
The Applied Linguistics major has the following learning outcomes:

• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students
Transfer applicants to the Applied Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of one foreign language or one year of two different foreign languages, 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.

Requirements

Preparation for the Major

Required: Anthropology 4 or Psychology 10. Linguistics 20, and completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major

Required: Ten upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 130 or C140, three courses selected from Linguistics 104, 115, 120C, 130, C140, M141, 144, M146, 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, M159, Arabic 180, 181, Armenian 110, Chicana/o and Central American Studies 164XP, M167XP, M170XP, Communication 118, 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.

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.

Policies

Preparation for the Major

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major

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.

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 linguistics theory, the study of the structure of human language generally. They will also learn the many ways in which language affects human history, social identity, social interaction, and politics. Successful graduates will be well acquainted with linguistic structure, language diversity, and language typology, as well as the anthropological and social consequences of the nature of human language.

Learning Outcomes

The Linguistics and Anthropology major has the following learning outcomes:

• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and linguistic anthropology, and use it in research

Entry to the Major

Transfer Students
Transfer applicants to the Linguistics and Anthropology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course and two years of one foreign language or one year of two different foreign languages. One cultural and communication course is strongly recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Anthropology 4, Linguistics 20, and completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major

Required: Eleven upper-division courses as follows: Linguistics 102 (or 103), 110, 119A (or 120A), 120B or 127, M146 (or Anthropology M150); two courses from 114, 120C, 144, 160, 161, 170; one course from Anthropology 151 or Sociology CM124A (or Communication M144A); and three upper-division electives from the Anthropology 130 series (one course only), the 150 series (one course only), the 160 series (one course only), Sociology CM124A (or Communication M144A), CM125 (or Communication M125).

Honors Program

Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.
Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major
Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Linguistics and Asian Languages and Cultures BA
The major combines the basic courses of the general linguistics program with that of East Asian languages and cultures, focusing on one of the three language tracks (Chinese, Japanese, Korean). Students are able to study the civilizations of China, Korea, Japan, and India; and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes
The Linguistics and Asian Languages and Cultures major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students
Transfer applicants to the Linguistics and Asian Languages and Cultures major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Chinese, Japanese, or Korean, 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.

Requirements

Preparation for the Major
Required: Anthropology 4, Linguistics 20, and either Chinese 50, Japanese 50, or Korean 50, as appropriate; completion of the equivalent to the sixth level in either Chinese, Japanese, or Korean, and the equivalent to the third level of a second foreign language.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B), one upper-division elective course in the Linguistics Department (minimum 4 graded units); for the Chinese track; Chinese 100A, 100B, 100C (or 100D, 100E, 100F, or 100I), two courses from Asian 104, Chinese 101A, 101B, 101C, 103, 110A, 110B, 110C, C120, 130A, 130B, 165; for the Japanese track: Japanese 100A, 100B, 100C (or 100S), two courses from Asian 104, Japanese 101A, 101B, 101C, 110A, 110B, M120, CM123 (or CM127), 130A, 130B; for the Korean track: Korean 100A, 100B, 100C; two courses from Asian 104, Korean 101A, 101B, 101C, 103A, 103B, 103C, C105A, C105B, C105C, CM120, CM127.

Honor 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.

Policies

Preparation for the Major
Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
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.
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

Entry to the Major
Transfer Students
Transfer applicants to the Linguistics and Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or one year of two different foreign languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Linguistics 20, Philosophy 31, and 10A, 10B, 10C, completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in the Linguistics Department (minimum 4 graded units), two courses selected from English 113A, 120, 141B, or Linguistics 170, and three elective courses selected from English 113A, 120, 140A, 140B, 141B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the 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.

Policies
Preparation for the Major
Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

The same course may not be used to satisfy more than one upper-division major requirement.

Linguistics and Philosophy BA
The major combines the basic courses of the general linguistics program with that of philosophy, for students who are reflective about their beliefs or who wish to become so. Students enrich their knowledge about the nature, grammar, and history of human language, and are given the opportunity to ponder the foundations of almost any other subject to which they are exposed—whether history, religion, government, law, or science.

Learning Outcomes
The Linguistics and Philosophy major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, semantics, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major
Transfer Students
Transfer applicants to the Linguistics and Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one symbolic logic course and two courses from introduction to philosophy of mind, philosophy of science, 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.

Requirements
Preparation for the Major
Required: Linguistics 20, Philosophy 31, and 10A, 10B, 10C, completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major
Required: Eleven upper-division courses as follows: Linguistics 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.

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.
Policies

Preparation for the Major
Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Linguistics and Psychology BA
The major combines the basic courses of the general linguistics program with that of psychology. Students are able to study and explain human and animal behavior, both normal and abnormal, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes
The Linguistics and Psychology major has the following learning outcomes:
- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major
Transfer Students
Transfer applicants to the Linguistics and Psychology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish; one Spanish composition course; one Spanish, Portuguese, and nature of language course; one Spanish civilization course or one Spanish American civilization course; one introduction to linguistics course; and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Linguistics 20, Psychology 10, 85, 100A, 100B, and completion of the equivalent to the third level of two different foreign languages. Program in Computing 10A is strongly recommended.

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, 1335, or 140, 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, 132B, or 133E, and two elective courses selected from Psychological Statistics 120A, 127, 129, 132, 133C, 133E, 133F, 186A, 186B.

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.

Policies

Preparation for the Major
Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Linguistics and Spanish BA
The major combines the basic courses of the general linguistics program with that of Spanish. Students are able to study the Spanish language, civilizations, and cultures of the Hispanic heritage, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes
The Linguistics and Spanish major has the following learning outcomes:
- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major
Transfer Students
Transfer applicants to the Linguistics and Spanish major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish; one Spanish composition course; one Spanish, Portuguese, and nature of language course; one Spanish civilization course or one Spanish American civilization course; one introduction to linguistics course; and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Linguistics 20, Spanish 25 (or 27), M35, 42 (or 44), and completion of the equivalent to the fifth level of Spanish, and completion of the equivalent to the third level of a second foreign language.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B), one upper-division elective course in the Linguistics Department (minimum 4 graded units), Spanish 100A, 100B, 119, 180, and one additional upper-division Spanish course.

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.
American Sign Language

Lower-Division Courses


8. Intermediate American Sign Language. (15) Lecture, 20 hours. Not open to students with credit for course 3 or students who have learned, from whatever source, enough American sign language to qualify for any advanced courses. Intensive evening instruction in American sign language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

9. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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.

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.


4. Language and Evolution. (5) Formerly numbered 4.) (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’s major 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

Graduate Major

Linguistics MA, CPhil, PhD

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.

The Major

A 2.0 grade-point average in linguistics courses is required for the major.

Undergraduate Minor

Linguistics Minor

The Linguistics minor is designed for students who are interested in learning about the structure of human language and the languages of the world, as well as interactions of language and culture. 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.

M120. History of Deaf Communities in America. (4) (Same as History M147E) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of history and culture of deaf communities in America (circa 1800 to present) by exploring major events impacting deaf people, including development of sign language, deaf education, autism, politics of deafness, eugenics, deaf revolution movements, and role of hearing technology. Historical development of emergence, growth, and survival of America’s deaf community and development of deaf identity over time. P/NP or letter grading.

121. History of Mass Media and Deaf Community. (4) Lecture, three hours. Historical survey of mass media (print, film, television, and Internet) as sources and interpreters of deafness and deaf people within context of U.S. social and cultural history. Examination of mass media’s role in shaping deaf identity and deaf community. 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.

Linguistics

Lower-Division Courses

1. Introduction to Study of Language. (6) Lecture, three hours; discussion, one hour. Summary for general undergraduates of what is known about human language; biological basis of language, scientific study of language and human cognition; uniqueness of human language, its structure, universality, its diversity; language in social and cultural setting; language in relation to other aspects of human inquiry and knowledge. P/NP grading.


M4. Language and Evolution. (5) Formerly numbered 4.) (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’s major 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 representational 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 their first perception and production of speech sounds, then investigation of how children learn words and rules for producing and understanding them. Language acquisition in special populations such as children acquiring sign languages, bilingual children, and people acquiring language beyond critical period. Focus mainly on English, with consideration of other languages. Offered in summer only. P/NP or letter grading.

M7. Language and Identity. (5) Same as Philosophy M24.) 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; male genderlects and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, 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 for topics and methods 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 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 1 A.U. Individual contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics offered by department. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Project. (1 to 2) Tutorial (supervised research for scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Introduction to Applied Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 103. Basics of articulation and acoustics of phonetic categories used in world’s languages, including English in comparison with other languages. Practice in speech-sound perception and transcription using International Phonetic Alphabet (IPA). Applications to language learning/teaching and other fields. P/NP or letter grading.

103. Introduction to General Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of B– or better. Not open for credit to students with credit for course 102. Phonetics of variety of languages and phonetic phenomena that occur in languages of world. Extensive practice in perception and production of such phenomena. P/NP or letter grading.

104. Experimental Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Required: course 102 or 103. Survey of principal techniques of experimental phonetics. Use of laboratory equipment for recording and measuring phonetic phenomena. P/NP or letter grading.

105. Morphology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. In linguistics, morphology is study of word structure. Morphological theory seeks to answer questions such as how should words and their components (roots, prefixes, suffixes, vowel changes) be classified crosslinguistically? how do speakers store, produce, and process complex words (words with affixes, compounds)? how do speakers know how to produce correct word forms even when they have not previously heard them and how do speakers know that particular words are well-formed or ill-formed? is there principi
dale division in inflection and derivation? how can we best account for variation in forms that are same (e.g., 'root in keep/keep

106. Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 102 or 103, 119A or 120A, and 120B. Methods and theories appropriate to historical study of language, such as comparative method and methods of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

107. Introduction to Historical Linguistics for Graduate Students. (4) Lecture, four hours. Limited to and designed for entering linguistics graduate students. Methods and theories appropriate to historical study of linguistic. Basic historical linguistics: methods and theories appropriate to historical study of language, such as comparative methods and method of internal reconstruction. Sound change, grammatical change, semantic change. S/U grading.

110. Intonation. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 102 or 103, and 119A or 120A or 120B. Recommended Methods: use 104 or 204A. Survey of international theory for English and other languages, with particular emphasis on phonological models of intonation. Students learn to transcribe intonational elements. P/NP or letter grading.

114. American Indigenous Linguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Strongly recommended preparation: course 20. Study of indigenous, areal, and typological classifications of American indigenous languages; writing systems for American indigenous languages; American indigenous languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.

115. Linguistics and Speech Pathology. (2 or 4) Lecture, four hours; discussion, one hour (when scheduled). Required: course 102 or 103. Introduction to field of speech pathology includes historical foundations of speech, language, and hearing; and disorders of speech production, language, voice, and hearing, affecting children and adults. In-class presentation and final term paper required if taken for 4 units. P/NP or letter grading.

116. Introduction to Japanese Linguistics. (4) (Same as Japanese M120.) Lecture, three hours; discussion, one hour. Enforced requisite: Japanese 3 or 8 or placement test. Topical introduction to Japanese grammar and sociolinguistics through reading, discussion, and problem solving in phonology, syntax, semantics, and discourse pragmatics. Letter grading.

117. Applied Phonology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 20, and 102 or 103. Not open for credit to students with credit for course 120A. Sound structures and sound patterns in world’s languages. Rules, rule ordering, features, syllable, and higher structure. Comparison of sound patterns of different languages. Tools of phonology as applicable to other fields. P/NP or letter grading.

120A. Phonology I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 103. Introduction to phonological theory and analysis. Rules, representations, underlying forms, derivation, and formalization of phonological analyses. Emphasis on practical skills with problem sets. P/NP or letter grading.

120B. Syntax I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20 with grade of B– or better. Course 120A is not requisite to 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on in
sight into nature of such structures rather than linguistics formalization. P/NP or letter grading.

120C. Semantics I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 119B or 120B. Survey of most important theoretical and descriptive claims about nature of meaning. P/NP or letter grading.

127. Syntactic Typology and Universals. (5) Lecture, four hours; discussion, one hour (when scheduled). Required: course 20. Study of essential simi-
topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Linguistics. (4) Seminar, three hours. Requisite: course 1 or 20. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

192A-192B. Undergraduate Practicum in Linguistics. (4-2) Seminar, seven hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in linguistics courses. 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 Linguistics Department major. Individual contract required. Information and contracts may be obtained from Linguistics Department chair. P/NP grading.

194. Research Group Seminars: Laboratory Research in Linguistics. (1 to 2) Seminar, one hour; laboratory, three to six hours. Students actively participate in experimental, computational, or fieldwork research in linguistics. They have opportunity to learn variety of research methods in laboratory or other collaborative environment. Students may be involved in various kinds of research, including designing and administering experiments, data analysis, and/or participating in corpus annotation. Students are expected to attend regular laboratory meetings, if offered. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP grading.

195. Community or Corporate Internships in Linguistics. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to junior/seior majors. Internship in supervised setting in community agency or business related to linguistics and/or applied linguistics. Students meet on regular basis with instructor and provide periodic reports of their experience. Additional supervision to be provided by internships site supervisor. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, four hours. Requisite: course 1 or 20. Limited to juniors/seniors. Independent study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Linguistics I. (4) Tutorial, to be arranged. Preparation: 3.5 grade-point average. Requisite: course 165A or 200A or 165B (or 200B). Recommended: completion of both courses 165A and 165B (or 200A and 200B) before or during term in which course 198A is taken. Limited to juniors/seniors. Directives for honors thesis or comprehensive research project on linguistic topic selected by student under direct supervision of faculty member. Consultant professor in charge to enroll. May be repeated as credit. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Linguistics II. (2) Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Directives for honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty member. Consultant professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Linguistics. (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. Cullminating 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. Course 200A and/or 200B are two course surveys 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 linguistic student or grade of A in course 120B or equivalent course in syntax. In-depth introduction to selected topics in theory of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include 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 generalized quantifiers and semantic universals, predicative argument structures, variable binding and pronoun-argument, formal semantic interpretation, syntax and LF, tense, ellipsis, and focus. Letter grading.

210A. Phonological Theory II. (2 or 4) Lecture, four hours. Preparation: completion of course 200A. Second course in two-course survey of current research in phonological theory. Topics include autosegmentalism (tone, tiers, segment structure), feature theory, underspecification, prosodic morphology, S/U (2-unit course) and S/U or letter (4-unit course).

210B. Syntactic Theory II. (2 or 4) Lecture, four hours. Preparation: course 200B. In-depth introduction to selected topics in movement theory. Topics selected from following areas: WH-movement and related rules, subjacency and other constraints on movement; ECP and related conditions on distribution of empty categories; resumptive pronoun construction; parametric variation in movement constructions; LF WH-movement; filters; reconstruction; parasitic gaps; barriers theory; control theory; null subject parameter. S/U (2-unit course) and S/U or letter (4-unit course).

210C. Semantic Theory II. (2 or 4) Lecture, four hours. Preparation: course 200C. Survey of current approaches to model-theoretic semantics and its relation to current linguistic theory. Approaches include generalized categorial grammars, Montague grammar, Boolean-based systems, generalized quantifier theory, logical form. S/U (2-unit course) and S/U or letter (4-unit course).


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 related to 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, electroglottography, sensors and electropalatography, electromyography, 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 physiology and psychophysics, categorical speech perception, and cross-linguistic speech perception and word recognition. Emphasis on use of experimental methods such as lexical decision, rating, priming, eye tracking, phoneme monitoring, and word spotting. S/U or letter grading.


207. Pragmatic Theory. (2 or 4) Lecture, four hours. Requisites: courses 200C, 201C. Introduction to formal pragmatic theory. Topics include speech act theory, imperatives, and other illocutionary acts; distinction between performative and declarative content; Gricean implicature, conversational implicature, and local implicature; and formal treatments of discourse, including game-theoretic pragmatics. S/U or letter grading.


209A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. 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 their linguistic sophistication and computational ideas underlying kinds of grammars used in theoretical linguistics and psycholinguistics. Themes include role of recursion, relationship between structure and surface; distribution and relationship between grammars and probabilities, and relationship between derivations and parsing. S/U or letter grading.

209B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Overview of formal computational ideas underlying kinds of grammars used in theoretical linguistics and psycholinguistics. Topics include linguistic theory, imperatives, and other illocutionary acts; distinction between performative and declarative content; Gricean implicature, conversational implicature, and local implicature; and formal treatments of discourse, including game-theoretic pragmatics. 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 theoretical representations 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 data elicited from a native speaker of the language. Term papers to be relatively full descriptive sketches of the language. May be repeated for credit with topic change. S/U or letter grading.

210B. Field Methods II. (4) Lecture, four hours. Requisite: course 210A 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: course 120A or 120B. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe the intonational elements in intonational phonology.

212. Learnability Theory. (4) Lecture, four hours. Survey of some of most significant results on capabilitties of learners, given precise assumptions about their
213A. Grammatical Development. (4) Requisites: courses 200A, 200B. Recommended: course 130 or 233. Survey of theoretical perspectives and contemporary empirical research in developmental syntax, and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and issues of learnability.

213B. Brain Basis for Language. (4) Requisites: courses 200A, 200B. Recommended: course C135 or C235. Survey of theoretical perspectives and contemporary empirical research in neurological and cognitive bases of language, language development, and language breakdown.

213C. Linguistic Processing. (4) Lecture, four hours. Requisites: courses 165B and/or 200B. Recommended: courses 132 or 232, 201B. Survey of theoretical and contemporary empirical research in human processing of language (comprehension and/or production), with emphasis on syntactic processing, ambiguity resolution, effects of memory load, and the relation between grammar and processor. S/U or letter grading.

214. Survey of Current Syntactic Theories. (4) Lecture, four hours. Requisite: course 201B. Survey of several current syntactic theories, compared with one another and with theory discussed in course 201B, from point of view of theories’ relative descriptive and explanatory power. S/U or letter grading.

215. Syntactic Typology. (2 or 4) Lecture, four hours. Requisites: several current results in word-order universals; genetic classification of world’s languages; cross-language properties of specific construction types, including relative clauses, passives, and/or negative constructions, 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 201B. Selected topics on syntactic theories of anaphora and quantification in word-order universals; grammatical classification of world’s languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative constructions, agreement systems, deixis systems, and types of sentence complements. S/U or letter grading.

217. Experimental Phonology. (4) Lecture, four hours. Requisite: course 201B. Survey of experimental work that bears on claims about speakers’ knowledge of phonology, including theories of lexicon, relation between perception and phonology, and universal and language-specific variability. S/U or letter grading.

218. Mathematical Structures in Language II. (4) Lecture, four hours. In-depth study of generalized quantifier theory; selected topics from distinctive feature theory, formal syntax, partial orders and lattices, formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

219. Phonological Theory II. (2 or 4) Lecture, four hours. Requisites: several current results in phonological theory. Topics include structure of phonological representations, relations between representations, architecture of grammar, and explanations of phonological deviation. S/U (2-unit course) or letter (4-unit course) grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Analysis and classification of linguistic special research in development of syntagm, and/or phonology. Meets with course C266. May be repeated for credit with topic change.

222. Semantic Theory III. (2 or 4) Lecture, four hours. Requisites: courses 200C, 201C. Introduction of developments in ontology of formal semantics, including plural and modal categories, situations, times, degrees. Presentation of empirical motivation for these developments, and some cross-domain parallels supporting them. S/U or letter grading.

225. Linguistic Structures. (4) Lecture, four hours. Requisites: courses 120A, and 120B or 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.

222A-222B. Romance Syntax: French. (4–4) Lecture, four hours. Preparation: some knowledge of French (or one Romance language). Enforced requisite: course 120B. Course C222A is enforced requisite to C222B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with courses C213A-C213B, S/U or letter grading.

230. History of Linguistics. (4) Requisites: courses 200A, 200B. Aspects of history of linguistics. Different course offerings may deal with different areas of linguistics (e.g., phonology, syntax) or with different historical 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, with emphasis on how theories in linguistics inform processing models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inferring, speech error and production, and computation of syntactic structure during production. S/U or letter grading.

233. Computational Phonology. (4) Lecture, four hours. Requisites: courses 20, 119A or 120A, 119B or 120B. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital language disorders. Concurrently scheduled with course C135. Graduate students expected to read more advanced neurolinguistic literature and produce research papers of greater depth. S/U or letter grading.

234. Analyzing Historical Texts. (4) (Same as History M266C and Indo-European Studies M238B.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnohistorical context of legal and other documents written by native-speaking scribes and translators. Topics include paleographic technique and text analysis software. May be repeated for credit with topic change.

239. Research Design and Statistical Methods. (2 or 4) Lecture, four hours. Topics include identifying and defining research topics, selecting appropriate research design and measurements, designing student experiments, recording, analyzing, and interpreting data. S/U or letter grading.

244. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour. Topics include bilingualism and adult and child second language (L2) acquisition, with focus on understanding the role of L2 grammatical structure in developing L2 competencies. Discussion of sociolinguistic and social aspects of bilingualism. Concurrently scheduled with course C140. Graduate students expected to
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 or PhD degree requirements when taken for 1 unit. May be repeated for credit. S/U grading.

266. Seminar: Sociolinguistics. (2 or 4) Seminar, two hours. Graduate students, faculty, and visitors present ongoing work; review research in field; and prepare for conference. S/U grading.

275. Linguistics Colloquium. (4) Preparation; completion of MA requirements. Varied linguistic topics, generally presentations of new research by students, faculty, and visiting scholars. S/U grading.

276. Linguistics Colloquium. (No credit) Designed for graduate students. Same as course 275, but taken without credit by students not presenting a colloquium. S/U grading.

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.


411A-411B. Research Orientation. (2–2) Designed for graduate students. Sequence of lectures by department faculty to acquaint new graduate 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 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.

485. 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: 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 Studies. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward MA degree 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.

Swahili Lower-Division Courses


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 grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. In-depth study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

MANAGEMENT

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Sanjay Sood, PhD, Chair

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Daniel J. Benjamin, PhD  
Antonio E. Bernardo, PhD (John E. Anderson Professor of Management)  
Sushil Bikhchandani, PhD (Howard Noble Professor of Management)  
Randolph E. Bucklin, PhD (Peter W. Mullin Professor of Management)  
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Paola Giuliano, PhD (Chauncey J. Medberry Professor of Management)  
Noah J. Goldstein, MA, PhD (Ho–Su Wu Professor of Management)  
Carla Hayn, PhD (Ernst & Young Professor of Accounting)  
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Ivo I. Welch, PhD (J. Fred Weston Professor of Finance)
Robert Zeithammer, PhD

Professors Emeriti
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Dylan B. Minor, PhD
Gayle S. Northrop, MBA
Matthew A. Schmitt, MS, PhD
Jennifer M. Walske, PhD
Nathan M. Wilson, PhD
Overview
The John E. Anderson Graduate School of Management at UCLA offers a variety of programs leading to graduate degrees at the master’s and doctoral levels. These include a professional Master of Business Administration (MBA), a Master of Financial Engineering (MFE), and a Master of Science in Business Analytics (MS); 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 a 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 (an MA degree may be earned in the process of completing PhD requirements). A certificate Executive Program, as well as research conferences and seminars for experienced managers, are also offered.

Undergraduate Study
The school offers an undergraduate minor in Accounting, and an interdisciplinary minor in Entrepreneurship in conjunction with the College of Letters and Science. 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.

Undergraduate Minors
Accounting Minor
The Accounting minor provides students with a comprehensive accounting background.

Admission
To enter the minor, students must (1) have a minimum cumulative UCLA grade-point average of 3.2, (2) complete all required pre-admission courses with a minimum grade-point average of 3.2, and (3) receive grades of B or better in Management 1A and 1B. Retention of more than one pre-admission course or of any pre-admission course more than once results in automatic denial of admission to the minor. Satisfying these requirements does not guarantee admission to the program, as only a limited number of students are admitted each year.

Applications are accepted in fall, winter, and spring quarters. Nontransfer students must apply subsequent to completing 90 units. Transfer students must apply after completing two academic quarters (excluding summer sessions) at UCLA. Decisions are made by the Anderson School Accounting Area.

Required Pre-admission Courses (31 units minimum): Economics 1, 2, any statistics course offered or considered transferable to UCLA, Management 1A and 1B (former course 100 taken at UCLA may be substituted), Mathematics 3A or 31A, 3B or 31B or 31E, one Writing II course. If Management 1A and/or 1B are not taken at UCLA, students must complete courses 120A and 122 prior to admission to the minor.

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, 142A, 142B, 142C. 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 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 minor 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
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.

Executive Master of Business Administration
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
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.

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
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
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 Financial Engineering

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 preparation and analysis of financial transactions and financial statements. Valuation and recording of asset-related transactions, including cash, receivables, marketable securities, inventories, and long-lived assets. Current liabilities. 1B. Requisite: course 1A. Completion of balance sheet with emphasis on debt and equity, including in-depth introduction to time value of money concepts. Introduction to partnership and individual income tax accounting.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88. Lower-Division Seminar: Special Topics in Management. (1 to 4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Entry-Level Writing requirement. Variable topics seminar that examines specific issues or problems and ways that professionals in management approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

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 six units, including this course. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

108. Business Law. (4) Lecture, three hours. Not open to freshmen. Essentials of contracts, agency, partnerships, corporations, and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax rules in capital transactions and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 1B. Recommended: course 127A. Study of tax laws arising in formation, operation, and termination of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. 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, public–company status and going-public process, role of attorney, serving entrepreneurial clients, and fund accounting. Discussion of case study of current interest in accounting profession. Involves supplementation. P/NP or letter grading.

130A. Basic Managerial Finance. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Not open for credit to students with credit for Economics 106F. Study of financial decision making by business firms, with emphasis on applications of economic and accounting principles in financial analysis, planning, and control. Extensive use of problems and cases to illustrate varied analytical techniques employed in decision making. P/NP or letter grading.


142A. Analytics in Accounting I. (4) Lecture, three hours. Not open to first years. Introduction to use of models and modeling in decision making, with focus on important types of models, their formulation and application, and interpretation of results that may be gained from use of modeling. Topics include pivot tables, data tables, lookup functionality, introduction to programming behind spreadsheets, software functionality for optimization, and more. Applications are focused on accounting and finance, with emphasis on model formulation, interpretation of solutions, and understanding of mathematical versus verbal explanation of situations. Analytical focus on asking question, mastering data, preforming analysis, and communicating story. Letter grading.

142B. Analytics in Accounting II. (4) Lecture, three hours. Requisite: course 120A. Preparation: intermediate Excel user. Not open to first years. Topics include cleaning and analyzing data, and advanced dashboard techniques, to evaluate accounting data. All applications are related to accounting and finance. Includes developing analytics mindset, data exploration and preparation, and data quality. Emphasis on graphical and written techniques to communicate results. Letter grading.

142C. Analytics in Accounting III. (4) Lecture, three hours. Requisite: course 142B. Preparation: intermediate Excel user. Not open to first years. Topics include cleaning and analyzing data, and advanced dashboard techniques, to evaluate accounting data. All applications are related to accounting and finance. Includes developing analytics mindset, data exploration and preparation, and data quality. Emphasis on graphical and written techniques to communicate results. Letter grading.

159. Foundations of Business and Entrepreneurship. (4) Lecture, three hours. Introductory overview of core areas of business and entrepreneurship including accounting, finance, marketing, operations, organiza-
tion behavior, and strategy. Discussion of concepts in context of large existing organizations, small businesses, and new entrepreneurial ventures. Students gain solid foundational knowledge of components of business as well as how organizations are managed in increasingly competitive and global economy. Letter grading.

160. Entrepreneurship and Venture Initiation. (4) Lecture, three hours; discussion, one hour. Introduction to key concepts of entrepreneurship, including new product development, finance, business plan development, and technology commercialization. Basic tools and personal characteristics required for entrepreneurship. Terminology used by lawyers, accountants, venture capitalists, and investors in forming and financing new companies to be developed as startups, spinouts from existing companies, or acquisitions of existing company (or its assets). Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. Discussion of technology, feasibility, intellectual property, and licensing. Letter grading.

161. Business Plan Development. (4) Lecture, three hours. Enforced requirement: course 160. Fundamentals of developing effective business plans, both in presentation and design. Principles of designing and articulating plans for sales, marketing, product or service, operations, financials, management, and staffing functions of new startup businesses. How to develop a realistic plan to launch new business. Students present and defend plans, understand various analytical processes required to produce such plans, improve student writing and oral presentation skills, and gain experience as entrepreneurs. Evidence of angel and venture capital investors. Letter grading.

162. Entrepreneurship and Technology Commercialization. (4) Lecture, three hours. Designed for juniors/senior. Introduction to transformation of new knowledge and inventions into viable commercial products and services, with particular emphasis on technology being developed at major research universities like UCLA. Students gain understanding of assessment of protection of intellectual property and early evaluation of technologies to determine potential for commercialization. How intellectual property in its various forms is protected and how rights to these assets are negotiated by parties involved. Examination of nature of contracts and negotiation between university technology transfer offices, researchers, technical experts, and early stage investors. Focus on commercialization space that might lead to patents, licenses, or new business development. Letter grading.

163. Entrepreneurship and New Product Development. (4) Lecture, three hours. Designed for juniors/senior. Introduction to new product innovation and management. Students assume role of product managers in identifying, developing, and commercializing new products through cases, businesses currently in news, team projects, and readings to develop critical thinking, decision-making skills, and creativity in launch of successful new product (team project). Letter grading.

164. Entrepreneurial Finance and Accounting. (4) Lecture, three hours. Designed for juniors/senior. Introduction to fundamental concepts of financial management of early-stage companies, with particular emphasis on small businesses and early stage investors. Partnership between entrepreneurs and investors and discussion of different goals of founders and investors, including nature of negotiation and relationship between parties involved. Investment-quality business plans and new venture commercialization space that might lead to patents, licenses, or new business development. Letter grading.


167. Social Entrepreneurship. (4) Lecture, three hours. Designed for juniors/senior. Examination of fundamental challenges and opportunities of developing and managing enterprises with social missions. Use of framework to develop strategic implementation plan that incorporates external analysis, organizational assessment, strategy development, and executable action steps and draws on experience of faculty members and alumni as well as experts in fields of social entrepreneurship, nonprofit management, and strategic philanthropy who present select topics of interest. Letter grading.

168. Personal Financial Health: Theory and Practice. (4) Lecture, three hours. Helps develop class of financially literate students who will be financially secure today and in future. Students gain knowledge, skills, and confidence to take charge of their financial future and improve financial well-being. Covers many financial decisions made by entrepreneurs. Interplay between financial conditions of business and financial situation of owner is something that many entrepreneurs fail to plan for when they launch new business. Specific topics covered include budgeting, time value of money, installment purchases, protection of assets, principles of investing, retirement and estate planning, psychology of money, income taxes, banking, and credit. Topics from behavioral finance include suboptimal spending, mistakes investors make, and money and happiness. Letter grading.

169. Entrepreneurial Leverage and Practical Experience. (4) Lecture, three hours; fieldwork, eight hours. Enrolment by instructor consent. Capstone for undergraduate minor in Entrepreneurship. Application of knowledge and skills gained in previous courses to one of following experiences: internship at off-site entrepreneurial firm, or active pursuit of entrepreneurial startup idea. Real-world experience supplemented with agency or organization's mentorship, professional leadership, ethics, and professional branding. Letter grading.

170. Real Estate Finance and Investments. (4) Lecture, three hours. Exploration of fundamentals of residential and commercial real estate finance, investment, and development. Study of qualitative concepts and quantitative tools necessary to develop real estate decision-making skills. Analysis of variety of case studies, including real estate development projects from U.S., China, and Japan that highlight opportunities, risks, challenges, and solutions that were unique to each situation. Use of specially prepared Excel models to understand and evaluate financial aspects of transactions, consideration of macroeconomic context, and discussion of its potential impact on real estate finance and investment decisions. Letter grading.

180. Special Topics in Management. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific subjects may vary each term depending on assessment of interest. May be repeated for credit. P/NP or letter grading.

182. Leadership Principles and Practice. (4) Lecture, six hours. Proven methods for motivating, and implementing 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.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requirement: 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 to 4) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental 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 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.

194. Anderson School of Management Research Seminar Group. (2) Seminar, two hours. Study and analysis of current topics in management and business. Discussion of current research and literature in research specialty of faculty instructor. P/NP grading.

195. Community or Corporate Internships in Management. (2 to 4) Tutorial, to be arranged. Limited to juniors/senior. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Management. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected research topic under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

201A. Business Forecasting: Turning Numbers into Knowledge. (4) Discussion, three hours. Preparation: familiarity with linear regression. Examination of one approach to analytical thinking—forcing numerical and textual data into carefully formulated alternative models. Data studied include macroeconomic variables, interest rates, inflation, unemployment, and exchange rates, industry data, and firm data. Letter grading.


202B. Economic Consulting and Applied Managerial Economics. (4) Lecture, three hours. Designed for students interested in business topics in applied econometric modeling. Emphasis on assumptions underlying classical normal linear regression model, special problems in application, and interpretation of results. Practical applications extensively developed in student projects.

202C. Economic Consulting and Applied Managerial Economics. (4) Lecture, three hours. Designed for students interested in business topics in applied econometric modeling. Emphasis on assumptions underlying classical normal linear regression model, special problems in application, and interpretation of results. Practical applications extensively developed in student projects.
tion agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239. S/U or letter grading.

209A-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. Course 209A is enforced requisite to 209B. Advanced course in business organization. Examination of terms of business transactions and allocation of control, risk, and return. Topics include venture capital investments, debt and loan agreements, employment agreements, production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239. In Progress (209A) and S/U or letter (209B) grading.

214. Managerial Decision Making. (4) Lecture, three hours. Introduction to principles of rational judgment and choice, common behavioral biases of managers and consumers, and correct tools and procedures, drawing heavily on disciplines of psychology and behavioral economics. Topics include decision structuring, forecasting, confidence, confirmation bias, 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 concepts and simple analyses in exercise debriefs to gain insight and to develop framework applicable to business negotiations. S/U or letter grading.


217A. Decision Analysis. (4) Lecture, three hours. Requisite: course 109. Development of decision making in situations where uncertainty 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 presented and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of treasure hunting, and bidding. S/U or letter grading.

218. Tools and Analysis for Business Strategy. (4) Lecture, three hours. Goal is for students to become more comfortable with design, execution, and interpretation of data analysis that can meaningfully inform business strategy formulation. Pedagogical approach is firmly rooted in learning by doing. Use of 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. S/U or letter grading.


222. Corporate Decision Making and Incentives. (4) Lecture, three hours. Requisite: 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 solve real societal and policy problems. 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 skill application of behavioral insights to problems that drive consumer and business decisions. 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 provides a practical approach to teach students to recognize, understand, and manage legal issues. Topics include contract law, litigation process and alternatives, intellectual property law, business formation and corporate law, employment law, collateralized lending, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or letter grading.

225. Law and Management of Nonprofit Organizations. (4) Same as Public Policy M229. Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofit organizations. Topics include how to start nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Code Section 501(c)(3), corporate governance, political and legislative activity restrictions, fundraising, non-profit accounting, and employment law. S/U or letter grading.


228. Financial Statement Analysis. (4) Lecture, three hours. Requisite: course 403. Preparation: course 220 (corporate financial reporting), or comfort with learning how to read financial statements. Development of skills and tools for using financial statements and other information to evaluate and value companies. Financial analysis segment covers use of accounting to evaluate company performance. Forecasting and valuation segment develops of techniques for estimating fundamental value of company, and evaluating estimates. Applied course with some psychological biases that researchers suspect are inherent to investors. Employment of some results from psychology literature to explain irrationalities encountered in derivative markets. Students learn fundamentals of hedging and spreading by playing option trading game and writing term paper analyzing their strategy. Letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing companies in emerging industries. Consideration and selection of financing vehicles that may be appropriate to securing organizations’ money requirements. S/U or letter grading.

232A. Investment Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, performance evaluation, and basics of portfolio management strategies. S/U or letter grading.


232D. Option Markets. (4) Lecture, three hours. Requisite: course 408. Organization and role of organized derivative markets, including listed and OTC options and futures; arbitrage and hedging relationships, valuation of derivative speculative and hedging activities in derivative markets. Students learn fundamentals of hedging and spreading by playing option trading game and writing term paper analyzing their strategies. Letter grading.

232E. Market and Credit Risk Management. (4) Lecture, three hours. Requisites: courses 408, 430. Discussion of regulatory environment for both market and credit risk management, data necessary to manage these risks, tools, techniques designed for risk management, types of securities and techniques for hedging market and credit risks, performance measurement of risk management systems, and other topics that affect risk management, such as operation risk, liquidity risk, commodity risk, weather risk, and model risk. Letter grading.

232F. Behavioral Finance. (4) Lecture, three hours. Requisite: course 408. Introduction to and explanation of evidence of anomalous return behavior found in U.S. equities markets. Presentation of some paradigms of stock price movements that are rooted in studies of psychology and explanation of trading activity in equity risk-return paradigm. Introduction to some psychological biases that researchers suspect are inherent to investors. Employment of some results from psychology literature to explain irrationalities encountered in finance literature. Presentation of latest evidence on why individual investors trade and how individual and institutional investors form their portfolios. Letter grading.


235. Venture Capital and Private Equity. (4) Lecture, three hours. Requisite: course 408. Use of cases to study entrepreneurial finance and venture capital. Academic issues faced by venture capital firms and private equity firms, with special focus on setting up new firms, as well as decisions of private equity partnership managers and investors. How transactional structures are structured and why investors and entrepreneurs choose certain contractual arrangements. Development of understanding of institutional context of private equity finance. Time also devoted to leveraged buyouts. S/U or letter grading.

238. Special Topics in Finance. (4) Lecture, three hours. Requisite: three courses. Selected topics in finance theory, empirical studies, and financial policy. May be repeated for credit with instructor change. S/U or letter grading.
240E. Managing Entrepreneurial Operations. (4) Lecture, three hours. Requisite: course 410. Designed for second-year graduate students. Exploration of operating issues involved in managing entrepreneurial enterprises. Integrative course, building on methodologies, principles, and concepts provided in requisite functional and strategic core courses. Use of extensive readings and case studies to develop skills and philosophical basis for applying managerial concepts to entrepreneurial firms. S/U or letter grading.

240F. Global Supply Chain Management. (4) Lecture, three hours. Requisite: course 410. Business environment today is characterized by globalized operations, increasing product life cycles, and short product life cycles. Consequently, firms can no longer afford to operate in isolation. In many industries competition has moved from firm level to supplier level to strategic, tactical, and operational issues in supply chain management, with generous attention to emerging digital economy. S/U or letter grading.

240G. Global Operations Strategy. (4) Lecture, three hours. Requisite: course 410. High-technology firm, including acquisition, creation, and utilization of knowledge and intellectual property. Research and product development, production and process technologies, technology regimes, high-technology markets, competition, and technology strategies. Case examples may include companies such as computing, telecommunications, e-business, medical devices, nanotechnology, advanced transportation systems, and electronics. S/U or letter grading.

246A. Business and Environment. (4) Lecture, three hours. Overview of the main functional areas of business and their interactions with environmental issues. Course is open to students from all majors. S/U or letter grading.

M247. Innovation and Technology Entrepreneurship for Entrepreneurs and Managers. (2) [Same as Electrical and Computer Engineering M239.] Seminar, two hours; outside study, four hours. Introduction to intellectual property and technology entrepreneurship. Topics include intellectual property and 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 strategies, best practices for managing intellectual property, legal, marketing, and business considerations, the role of venture capital in intellectual property development, and key trends and issues. Letter grading.

230. Patterns of Problem Solving. (4) Lecture, three hours. Acquisition of strategies that enhance adaptive planning and problem solving, based on findings from brain studies and cognitive research. Design of tools to respond to emergent uncertainties and to address situations where intense pressures of time and cost are present. Letter grading.

252. Persuasion and Influence. (4) Lecture, three hours. Enforced requisite: course 409. Designed for individuals interested in improving their ability to persuade and influence others. Emphasis on development of persuasion and influence strategies that result in greater buy-in for one’s ideas, initiatives, proposals, products, and requests. Letter grading.

254. Incentives and Motivation in Organizations. (4) Lecture, three hours. Concepts and tools are presented in MBA, EMBA, and FEMBA students. Focus on strategic management of human resources to create value by directly motivating behavior consistent with goals and policies of firm. Motivating effects of different forms of monetary and non-monetary incentives in different types of organizations and for different types of employees and executives. Analysis of cases and interaction with experts in human resource management and compensation practices to develop skills needed to design and implement optimal reward systems for organizations. S/U or letter grading.

256. Leadership and Ethics. (4) Lecture, three hours. Series of real-life business situations that pose complex problems of leadership and ethics, so students develop better understanding of how they can successfully address complex situations that define their leadership and ethical positions. Letter grading.


262. Price Policies. (4) Lecture, three hours. Requisites: courses 405, 411. Consideration of environment of pricing decision—costs, customer, competitors, channel, and regulation. Analysis of when and how to apply selective pricing strategies, such as two-part tariffs, quantity discounts, product differentiation, bundling, and auctions. Letter grading.

263A. Consumer Behavior. (4) Lecture, three hours. Requisite: course 411. Study of nature and determinants of consumer behavior. Emphasis on influence of sociopsychological factors such as personality, small social groups, demographic variables, social class, and culture on formation of consumers’ attitudes, 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, providing knowledge of concepts and methods of marketing research, with increased sensitivity to limitations of market research. Letter grading.

264B. Data Analytics for Marketing and Finance. (4) Lecture, three hours. Requisite: course 411. How to fit predictive models and visualize multivariate data using examples and topics from marketing and finance. Topics include conditional prediction and predictive models, advanced treatment of regression, visualization and graphics, automating analysis for high dimensional data. Use of industry-leading R/Python studio business analytics software. S/U or letter grading.

265. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation, and management of brands. Discussion of measures and techniques for building and maintaining strong brands. Topics include building brand knowledge and identities, marketing mix 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 tools and methods and applying them to case studies, exercises, and course project. Products viewed through three lenses: quantifiable rational attributes, appeal due to emotional characteristics, and overall technology/commercial results. Process also investigated through five key phases: ideation, concept generation and selection, detailed design, prototyping and testing, and ramp-up and product launch. Emphasis on formation of marketing plan and prototyping, cost reduction, and creativity. Letter grading.

266B. Advertising and Marketing Communications. (4) Lecture, three hours. Requisite: course 411. Detailed study of decisions regarding media and forms of 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. Requisites: courses 402, 411. Use of notion of customer life cycle as organizing principle and application to digital marketing challenges. Frameworks and data-analytical tools for interacting with customers and learning about their preferences as they evolve through four stages of customer life cycle: (1) customer awareness, (2) interest, (3) purchasing, (4) mid-maturity purchase and transaction behavior, and (4) customer attrition or switchover to other product lines. S/U or letter grading.

268. Selected Topics in Marketing. (4) Lecture, three hours. Requisite: course 411. Study selected areas of marketing knowledge and thought. Specific subject varies each term depending on particular interests of instructor and students. Individual projects and research may be repeated for credit. S/U or letter grading.


M271A. Medtech Innovation I: Entrepreneurial Opportunities in Medical Technology. (4) Same as Bioengineering M233A.) Lecture, three hours; outside study, nine hours. Designed for graduate and professional students in engineering, dentistry, design, law, public health, or medicine. Exploration of how to identify unmet clinical needs, properly filtering through these needs using various acceptance criteria, and selecting promising needs for which potential medtech solutions are explored. Students work in groups to expedite traditional research and development processes to invent and implement new medtech devices that increase quality of clinical care and result in improved patient outcomes in hospital system. Introduction to intellectual property basics and various medtech business models. Letter grading.

M271B. Medtech Innovation II: Prototyping and New Venture Development. (4) [Same as Bioengineering M233B] Lecture, three hours; outside study, nine hours. Enforced requisite: course M271A. Designed for graduate and professional students in engineering, dentistry, design, law, public health, or medicine. Exploration of development of medtech solutions for unmet clinical needs previously identified in course M271A. Steps necessary to commercialize viable medtech solutions. Exploration of conception selection, business plan development, intellectual property creation, and various medtech business models. Letter grading.

272A. Information Systems Project Management. (4) Lecture, three hours. Together with course 254 is open to MBA, EMBA, and FEMBA students. Focus on strategic management of human resources to create value by directly motivating behavior consistent with goals and policies of firm. Motivating effects of different forms of monetary and non-monetary incentives in different types of organizations and for different types of employees and executives. Analysis of cases and interaction with experts in human resource management and compensation practices to develop skills needed to design and implement optimal reward systems for organizations. S/U or letter grading.
282. Optimizing Team Performance. (4) Lecture, three hours. Enforced requisites: courses 405, 414A. Optimization of team performance by diagnosing complex team dynamics and taking appropriate action to improve team functioning to help students strengthen them in ways that are proven to increase effectiveness and performance of teams. Letter grading.

284C. Managing Entrepreneurial Organizations. (4) Lecture, three hours. Issues 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. Transitions that individuals must make as organizations grow. S/U or letter grading.

295A. 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 leadership styles, different motivation theories, and power tactics from a managerial point of view. Use of experience-based learning methods to aid diagnosis and understanding of one's own influence styles. S/U or letter grading.

295B. Managerial Interpersonal Communication. (4) Discussion, three hours. Designed for graduate students. Interpersonal and personality factors affecting managerial communications. Styles and modes of communication in one-to-one, group, and large-systems settings. Opportunities offered to deepen understanding of one's own communication styles and skills, considering verbal, nonverbal, perceptual, 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 interpersonal and negotiational skills through experiential 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 290A. Focus on key aspects of corporate business development transactions, including strategic deal selection, mergers and acquisitions deal integration, deal structuring, and execution. Examination of technology and digital media markets. Letter grading.

M295B. Growth, Science, and Technology. (4) (Same as Public Policy M280B.) Lecture, three hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors impinging on their behavior. How technological breakthroughs (or discontinuities) can form new industries or transform nature of and population of firms in existing industries. S/U or letter grading.

M293A. Political Environment of American Business. (4) (Same as Public Policy M281B.) Lecture, three hours. Examination of key aspects of political and governmental agencies and foreign-based firms on a range of ethical considerations in business decisions involving the international business of American political system. Designed to provide clearer understanding of principal features of American political culture, especially as 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 involving the individual, corporate, and international business. Analysis of cases for classroom presentation and discussion.

294. Law and Economics Workshop. (2 or 3) Seminar, two hours. Enrolled: courses 405 or Economics 212A, 212B. Knowledge of economic and legal concepts 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 entrepreneurial aspects in existing small business enterprises. Emphasis on identification and analysis of characteristic operating problems of small firms and application of appropriate methods or techniques for their solutions.

295C. Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurial and effective implementation of entrepreneurial strategies in large industrial enterprises. Emphasis primarily on managerial effects aimed at identification, development, and exploitation of technological 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 challenges of designing, funding, managing, and scaling enterprises with social mission. Through lectures, readings, case studies, and research project, exploration of competitive advantages and limitations of different approaches to creating social impact across sectors—private/for profit, public, and nonprofit—and on role of frameworks for understanding and analyzing problems facing society and cultivating critical thinking skills to identify diverse ways to address these 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 public, multinational, and business partnerships. Emphasis on problems of adaptation to different sociocultural, political, legal, and economic environmental characteristics on planning, structuring of organizations, relationships, and control in multinational firms. S/U or letter grading.


297C. International Business Law. (4) Requisites: courses 205A, 296A. Legal environments in which international business operates; overseas business relationships and operations; international trade, transfer of capital, and technology regulations; patent, trademark, and copyright safeguards; arbitration 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 governments, international organizations, and foreign firms. A wide range of issues, such as establishment/dissolution of joint ventures, extent of foreign ownership/management control, terms/conditions for technology transfers, lump sums, and large contracts.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Requisite: course 205A or 405. Analysis of changing economic, political, demographic, and sociocultural conditions in developing
countrys— 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 issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

299F. 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.

299G. 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 issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

301B. 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.

755. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: appropriate personnel experience 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.

405E. International Exchange Program. (2 to 16) Lecture, three hours. Designed for students. Students will be assigned to, and will have the opportunity to spend one term or year abroad in a foreign country. Courses taught by faculty members in conjunction with lectures by faculty members from top national university. Courses taught by school faculty members in another country for blend of lectures, guest speakers, campus academic sessions and one intensive week in another country for blend of lectures, guest speakers, panel discussions, and company visits, with focus on individual student presentations. Letter grading.

458A–458B. Global Immersion: Two-Quarter Program. (2–2) For course 458A: lecture, three hours; presentations, sites 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, and company visits, with focus on individual student presentations. Letter grading.

458C. Globalization and Multinational Corporations. (3) Lecture, three hours. Designed for graduate students. The course examines the unique characteristics of international operations and the implications of the multinationalization of business both domestically and internationally. The course covers the historical context and emerging trends of international business, and provides the tools and frameworks to understand and analyze the behavior of multinational firms. S/U or letter grading.

458D. Management and Finance of Emerging Enterprises. (2–2) Course 458D is enforced requisite to 458A. Limited to Global Executive MBA 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.

458F. Corporate Entrepreneurship. (4) Lecture, three hours. Designed for graduate students. The course examines the unique characteristics of international operations and the implications of the multinationalization of business both domestically and internationally. The course covers the historical context and emerging trends of international business, and provides the tools and frameworks to understand and analyze the behavior of multinational firms. S/U or letter 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 and open to all students enrolled in SUW and Fall Quarters of third year. Faculty-guided consulting project with international company or U.S. company with international project focus. Establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of primary and secondary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. Letter grading.

460A–460B. Managing Finance and Managing Emerging Enterprises. (2–2) Lecture, three hours. Course 460A is enforced requisite to 460B. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consideration and selection of financing vehicles that may be appropriate to securing money requirements of organizations. In Progress (460A) and letter (460B) grading.

468B. 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 agreements, and corporate man- age ment. Focus on learning sound theoretical tools and applying them in casework. 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.

478E. International Exchange: Executive MBA Program. (480A) Lecture, three hours; discussion and site visits, 20 hours. Preparation: completion of first-year core courses in LOBS. 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 and delivery of annual report. Training of incoming class and delivery of annual report. In Progress grading (credit to be given only on completion of course 457C and 457D). Letter grading.

478H. International Exchange: Emerging Enterprises. (2–2) Lecture, 15 hours; discussion and assignments, up to 30 hours (2-unit course). Preparation: completion of first-year core courses in LOBS. 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 and delivery of annual report. Training of incoming class and delivery of annual report. In Progress grading (credit to be given only on completion of course 457C and 457D). Letter grading.

478I. International Exchange: Technology Management. (2–2) Lecture, 15 hours; discussion and assignments, up to 30 hours (2-unit course). Preparation: completion of first-year core courses in LOBS. 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 and delivery of annual report. Training of incoming class and delivery of annual report. In Progress grading (credit to be given only on completion of course 457C and 457D). Letter grading.

480A–480B. Negotiations. (2–2) Lecture, three hours. Course 480A is enforced requisite to 480B. Limited to Global Executive MBA students. Introduction to a variety of negotiation methods and strategies, with an emphasis on the psychological, sociological, and cultural dimensions of negotiations. Participants learn to enhance their individual abilities in dyadic and group situations and to analyze contexts for most effective applications of these skills. In Progress (481A) and letter (481B) grading.

484A–484B. Management of Technology and Innovation. (2–2) Lecture, three hours. Course 484A is enforced requisite to 484B. Limited to Global Executive MBA 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.

488B. Advanced Entrepreneurship. (4) Lecture, three hours. Designed for graduate students. The course examines the unique characteristics of international operations and the implications of the multinationalization of business both domestically and internationally. The course covers the historical context and emerging trends of international business, and provides the tools and frameworks to understand and analyze the behavior of multinational firms. S/U or letter grading.

485. Corporate Entrepreneurship. (4) Lecture, three hours. Managerial efforts aimed at identification, development, and exploitation of technical and organiza-
tional innovations, management of new product or process developments, and effective new venture management in context of large corporations in manufacturing and service industries. Development of awareness and understanding of range, scope, and complexity of issues related to creation of organizational environment that is supportive of entrepreneurial endeavors, and insight concerning effective implementation of technological and organizational innovations in corporate settings. Letter grading.

488. Business Plan Development. (4) Lecture, four hours. Enforced requisites: courses 487A, 487B. Limited to Executive MBA program students. How to develop business plans, understanding of analytical processes required to produce plans, improvement of student writing and oral presentation skills, and review of business plans of other entities. Writing of one complete business plan and presentation of it to experienced investors. Letter grading.

489. Entrepreneurship and Venture Initiation. (4) Lecture, 90 minutes. Limited to Executive MBA program students. Introduction to basic tools and jargon required for entrepreneurship that requires financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors when formulating and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. S/U or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA AGSM graduate adviser and assistant 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. Research in Management. (1 to 8) Directed individual study or research. May be repeated. S/U or letter grading.

507. Preparation for Qualifying Examinations. (4 or 12) Preparation for master’s comprehensive examination or PhD qualifying examinations. S/U grading.


Management–Executive MBA

Graduate Courses

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 interpretation of statistical summary of data. Classical statistics covered through multiple regression to support courses in finance, marketing, and operations management. S/U or letter grading.


405. Economic Analysis for Managers. (4) (Formerly numbered Management 462.) Limited to Executive MBA program students. Policy-oriented problems in antitrust, tax securities, and environmental regulation. Concepts of microeconomic theory illustrated. Topics include traditional antitrust regulations, new trends in antitrust, private versus government antitrust, securitization regulations, and environmental regulation. (Formerly numbered Management 466A.) 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 463B.) Lecture, four hours. Limited to Executive MBA program students. Introduction to organizational behavior for executives, including not only optimal decision making, focusing motivation, and other topics on psychology of management. Lecture, discussion, and experiential applications of course concepts. S/U or letter grading.

410. Operations and Technology Management: Systems, Strategies, and Policies. (4) (Formerly numbered Management 474A.) Lecture, three hours. Limited to Executive MBA program students. Analysis of strategic and operating policies and decisions for systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems.

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 decisions. S/U or letter grading.

41A. Leadership Foundations I. (2) (Formerly numbered Management 481A.) Lecture, two hours. Limited to Executive MBA program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting diagnostic and decision-making skills of individuals. 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.

41B. Leadership Foundations II. (1) (Formerly numbered Management 461B.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 41A, 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 and team design and development. Readings, cases, decision simulations, peer coaching, and discussion (credit to be given only on completion of course 41C).

41C. Leadership Foundations II. (1) (Formerly numbered Management 461C.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 41B. Further exploration of leadership strengths and weaknesses, with emphasis on individual peer coaching, conflict management, individual goal setting, and goal achievement. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

41D. Leadership Foundations III. (1) (Formerly numbered Management 461D.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 41C. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on career development, social networks, and organizational design. Decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 41E).

41E. Leadership Foundations III. (1) (Formerly numbered Management 461E.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 41D. Further exploration of leadership strengths and weaknesses, with emphasis on individual leadership changes. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

42. Competitive Strategy and Business Policy. (4) (Formerly numbered Management 474B.) 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 decision-making strategies for business扩展到 academic settings and international business. Students learn to recognize 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 through participatory simulations and post-hoc analyses. Letter grading.

528A–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 comprehensive examination 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. Letter 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, one hour. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

445. Selected Topics in Management. (2) Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

446. Selected Topics in Management. (4) Seminar, four hours. Limited to Executive MBA program students. Preparation of comprehensive examination or PhD qualifying examinations. S/U grading.

449A. Introduction to Strategic Management Research. (2) (Formerly numbered Management 470A.) Fieldwork, two hours. Limited to Executive MBA program students. Methods of organizational and strategic research to determine variables of organization with its environment. In Progress grading (credit to be given only on completion of courses 445B and 445C).

449B. Strategic Management Research. (4) (Formerly numbered Management 467A.) Limited to Executive MBA program students. Preparation of strategic overview of selected company, including analysis of primary revenue, and secondary data, including but not limited to interviews of corporate executives, corporate financial and marketing data, industry reports, and customer and competitor analysis.
Management—Full-Time MBA
Graduate Courses

401A–401B. Leadership Foundations. (1–1) Three-day residential format (course 401A) and lecture, three hours (course 401B). Managing and working with people, with emphasis on motivation and development of individuals, leadership and interpersonal relationships, and group dynamics in complex organizational settings. In Progress (401A) and letter (401B) 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.

406. Foundations of Finance. (4) (Formerly numbered Management 406.) 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. Requisites: courses 402, 403. 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.


415. Foundations of Ethical Decision Making. (2) Lecture, three hours. Provides practical tools to help students navigate difficult decisions that leaders routinely face. Study adopts behavioral science approach to understanding ethical behavior in order to examine why good people sometimes do bad things. Answering this question requires understanding of fundamental psychological processes that govern human thought and behavior in ethical domains. These processes can lure anyone into ethical lapses that ruin careers, destroy businesses, and bring shame to individuals and organizations. Understanding these processes gives insights into practical ways of designing one’s organizational and personal systems to ensure that behavior be in line with their own stated values. Letter grading.


421A. Communication Development for Leaders. (2) (Formerly numbered Management 421A.) Lecture, three hours. Emphasis on communication basics and tailored to students’ needs—entrepreneurship, interpersonal communications, or public speaking. Students learn skills required to become better listeners; how to present differing types of materials, apply communication theory and strategy to organize informative and persuasive content, and effectively deliver presentations to varied audiences; apply visual and verbal messaging research and theory while analyzing audiences, organize and target messages for maximum persuasive impact, and communicate these messages in person-to-person settings. 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 and gaining support from stakeholders, and impressing interviewers and investors. Course materials are grounded in empirical research. Skills and techniques learned are broadly generalizable. Experimental exercises to enhance students’ abilities in oral and written communications. Study builds on managerial communication skills from Communication Development for Leaders (course 421A). Letter grading.

422. Applied Management Research. (8) (Formerly numbered Management 445.) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and presentation of implementable recommendations. Letter grading.

423A. 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 423C). Letter grading.

423B–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. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations; or (2) implementation of one new business or (3) pursuit of one faculty-led special research project worthy of publication in recognized academic refereed 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. Required of all full-time MBA students. Under direction of MBA program senior associate dean or other supervising faculty adviser, students perform supervised practical experience or fieldwork in organization as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study that includes reporting and assessment of fieldwork experience through combination of written or oral presentations and may include preparation of evaluations or consulting report correlating to defined program of study. S/U grading.

428A–428B. Business 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 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 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.

406. Foundations of Finance. (4) (Formerly numbered Management 406.) 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. Requisites: courses 402, 403. 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.

411. Marketing Management. (4) (Formerly numbered Management 411.) Lecture, three hours. Requisites: courses 402, 403. 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.

411. Marketing Management. (4) (Formerly numbered Management 411.) Lecture, three hours. Requisites: courses 402, 403. 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.

411. Marketing Management. (4) (Formerly numbered Management 411.) Lecture, three hours. Requisites: courses 402, 403. 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.
404. Negotiations Behavior. (4) (Formerly numbered Management 482) Lecture, three hours. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiation techniques (i.e., negotiations simulations). Participants learn to enhance their individual abilities in dyadic and group situations and to analyze contexts for most effective application of these skills. Letter grading.

406. Strategic Leadership and Implementation. (4) (Formerly numbered 486A) Lecture, three hours. Designed to address several fundamental aspects of leading through effective empathy on important tasks of developing well-aligned, high-performance organizations and on challenges of leading change in organizations. Enables students to develop pragmatic point of view on strategic leadership and to increase their awareness of themselves as leaders. Letter grading.

407A-407B. Entrepreneurship and Venture Initiation I, II. (2–2) (Formerly numbered Management 487A-487B.) Lecture, 90 minutes. Course 407A is required to 407B. Limited to UCLA-NUS Executive MBA program students. Introduction to basic tools and jargon required for entrepreneurship that requires financing or managing company or project. Terminology used by lawyers, accountants, venture capitalists, and other investors when forming and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. In Progress (407A) and letter (407B) grading.

410A. Logistics and Operations Management. (2) (Formerly numbered 410A) Lecture, three hours. Limited to UCLA-NUS Executive MBA program students. Analysis of strategic and operating policies and decisions for systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems. In Progress grading (credit to be given only on completion of course 410B).

410B. Logistics and Operations Management. (2) Lecture, three hours. Limited to UCLA-NUS Executive MBA program students. Analysis of strategic and operating policies and decisions for systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems. Letter grading.

412. Management of Technology and Innovation. (4) (Formerly numbered Management 483) Lecture, three hours. Problems of managing technological innovation in Asia. Topics include incorporation of technological consideration into strategy; adoption of technology; managing innovation through organizational design and leadership; e-business, and m-business. 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.

445A-445B-445C. Management Practicum. (4–2–2) (Formerly numbered Management 471A-471B.) Fieldwork, to be arranged. Three-term individual or group (three to five students) project on global strategic issues designed to allow students to employ and enhance concepts learned in classroom and Three Progress (445A and 445B) and letter (445C) grading.

Management–Master of Financial Engineering

Graduate Courses

400. Fundamentals of Investments. (2) Lecture, three hours. Limited to Master of Financial Engineering program students. Essentials of asset pricing and portfolio choice, standard discounted cash flow approaches, and no-arbitrage framework for valuing financial securities. Basic paradigms of asset pricing, such as capital asset pricing model (CAPM), arbitrage pricing theory (APT), and multi-factor models. Development and illustration of dynamic portfolio selection and optimization approaches. Letter grading.


405. Computational Methods in Finance. (4) Lecture, three hours. Limited to Master of Financial Engineering program students. Quantitative and computational tools used in finance, including numerical techniques such as implementation of binomial and trinomial option pricing, lattice algorithms for computing derivative prices and hedge ratios, simulation-
Management—Master of Science in Business Analytics

Graduate Courses


402. SQL and Basic Data Management. (2) Lecture, three hours. Limited to Master of Science in Business Analytics students. Introduction to and practice in Structured Query Language (SQL) syntax and constructs pertaining to data manipulation, and data controls in relational databases using MySQL; and important concepts of data management including data analysis and modeling for relational database management systems (RDMS). Letter grading.


406. Prescriptive Models and Data Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Fundamental tools in data analytics, including experimental design and analysis, regression analysis, and model design, and how to implement these approaches using statistical analysis package R. S/U or letter grading.

407. Data Analytics Industry Seminar I. (2) Seminar, 30 minutes to three hours. Required of Master of Science in Business Analytics students. Industry guest speaker presentations, S/U or letter grading.

408. Operations Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Introduction to data analytics such as simulation, optimization, queueing 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 in operations and management in health care industry, and practical experience with developing quantitative tools and empirical analyses. S/U or letter grading.

435. Data Visualization. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Exploration for improvement in design and management of health care systems and operations, using tools such as regression analysis, linear optimization, queueing 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 empirical analyses. S/U or letter grading.

443. Entertainment Analytics. (4) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Exploration for improvement in design and management of health care systems and operations, using tools such as regression analysis, linear optimization, queueing 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 empirical analyses. S/U or letter grading.


445. Data Visualization. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Offers solid basis for working with data and for exploring discipline. Collection, visualization, analysis, and processing 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.

436. Fraud Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. How to build analytics side of fraud detection. Covers all algorithmic aspects of solving fraud problem, in particular how to approach and design algorithmic solution. Focus on algorithmic development. Does not address software engineering aspects of building and fielding fraud solution. Topics covered are background for building real-time fraud detection systems and forensic accounting principles. 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, including simple and multiple regression, seasonal decomposition, AutoRegressive Integrated Moving Average (ARIMA), vector autoregressive, dynamic linear model, error correction models. Use of R, R Studio and its various packages for regression and time series econometrics analysis and forecasting models. S/U or letter grading.

438. Sports Analytics. (2) Lecture, three hours. Preparation experience (Python), basic probability theory. Basics of statistical, computational tools needed for application of analytics in sports. Study of application of analytics in sports for purposes of in-game strategy, player management, sports operations, and fantasy competitions, among other topics. Lectures, laboratories, guest speakers from sports industry and academia, and culminating group project. 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, departures from expected utility behavior. S/U or letter grading.


201B. Theory and Application of Regression Analysis. (4) Lecture, three hours. Recommended requisite: course 201A. Designed for PhD students. Introduction to general regression analysis. Linear model, maximum likelihood and asymptotic tests, endogeneity, instrumental variables, differences-in-differences, regression discontinuity design, propensity score matching, limited dependent variable models, introduction to panel data. S/U or letter grading.


202A-202B-202C. Accounting Workshops. (1–1–2) Lecture, two hours. Designed for PhD students. Intended to develop ability to critically evaluate research in field of accounting. Papers presented in colloquium format by leading scholars in accounting. Active participation and intellectual interchange encouraged during discussion of papers prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.

203A-203B. Research Topics in Finance. (2–2) Lecture, three hours. Course 203A is prerequisite to 203B. Designed for PhD students in their second through fourth year. Intends to help students bridge gap between coursework and research. Students select academic financial economics papers that they present, replicate, and critique. In Progress (203A) S/U or letter grading.

204A-204B-204C. Finance Workshops. (1–1–2) Lecture, 90 minutes. Designed for PhD students. Intended to develop ability to critically evaluate, finance research in progress. Open to leading scholars in finance. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.

205A-205B-205C. Seminars: Decisions, Operations, and Technology Management Systems. (1–1–2) Seminar, 90 minutes to three hours. Required of all PhD students in decisions, operations, and technology management. Student, faculty, and guest speaker presentations of ongoing research. May be repeated for credit. S/U or letter grading.

206A-206B-206C. Research Seminars: Management and Organizational Behavior. (1–1–2) Seminar, two hours. Designed for PhD students. Development of ability to critically evaluate research in fields relevant to study of problems of current concern in management and organizational behavior. Papers presented in colloquium format by leading scholars in organizational behavior. Active participation and intellectual interchange encouraged during discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

207A-207B-207C. Workshops: Marketing. (1–1–2) Lecture, three hours. Designed for PhD students. 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 that helps students gain richer perspective on field of marketing. In Progress (207A, 207B) and S/U or letter (207C) grading.

208A-208B-208C. Global Economics and Management Workshops. (1–1–2) Seminar, two hours. Designed for PhD students. Development of ability to critically evaluate research in fields relevant to study of economics. Papers presented in colloquium format by leading scholars in economics. 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. Designed for PhD students. Intended to develop ability to critically evaluate research in fields relevant to study of management strategy and policy. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.

231. Network Flows and Integer Programming. (4) Lecture, three hours. Preparation: linear programming. Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer programming models and their applications, (2) establish connections between these technical foundations and research issues in management, and (3) build professional skills needed to apply these tools. S/U or letter grading.

232. Behavior under Uncertainty. (4) Lecture, three hours. Designed for PhD students. Exploration of foundations and research issues in behavioral literature on judgment and decision making under uncertainty. S/U or letter grading.

233. Introduction to Multivariate Analysis. (4) Lecture, three hours. Preparation: working knowledge of differential and integral calculus of several variables, basic probability theory, and univariate mathematical statistics. Introduction to use of multivariate models in management research and their application to financial information; interpretation of coefficients from multivariate exploratory models (e.g., principal axes and factor analysis models); survey of multivariate statistical procedures (e.g., multiple discriminant analysis, multivariate analysis of variance, canonical correlation, and confirmatory factor models). S/U or letter grading.

234. Special Topics in Accounting. (4) Lecture, three hours. Preparation: doctoral standing or consent of instructor. Introduction to analytic modeling in accounting. Emphasis on financial and managerial accounting, advanced topics in financial analysis as implied by key tensions and related insights. Possible examination of mathematical expressions that encapsulate what can be learned from empirical models. 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.

238. Macroeconomics and Finance. (4) Lecture, three hours. Introduction to research frontier of dynamic and quantitative modeling and estimation in macro-economics. Exploring issues such as moving capital and market segmentation, and intermedia-based asset pricing. S/U or letter grading.

239. Empirical Asset Pricing. (4) Lecture, three hours. Focus on measuring and understanding risk premiums in financial markets. Study of evidence pertaining to pricing kernel and applied theoretical developments that are motivated by evidence. S/U or letter grading.


241A. Models for Operations Planning, Scheduling, and Control. (4) Lecture, three hours. Designed for PhD students with some knowledge of mathematical programming and stochastic processes. Foundations of operations planning, scheduling, and control. May be repeated for credit. 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 operational research, introduction to man-
M243. 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, structure, and culture. S/U or letter grading.

244. Advanced Studies in Organizational Behavior. (4) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature assessing how organizations utilize human resources to enhance individual, group, and organizational effectiveness. Current theoretical 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 in areas of strategy, 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 related fields. Students are assumed to have good background in marketing principles and to be familiar with probability, statistics, mathematical programming, and econometrics. Review of a range of quantitative models as applied in marketing research. S/U or letter grading.

249. Behavioral Research in Marketing. (4) Seminar, three hours. Designed for PhD students who are conducting research in consumer behavior or related areas. Emphasis on consumer behavior survey and critically evaluated from theoretical as well as practical perspectives. S/U or letter grading.

250. Special Research Topics in Marketing. (4) Lecture, three hours. Designed for PhD students. Advanced selected topics in marketing, with emphasis on thorough examination of one or two topics in current research and theory. May be repeated for credit. S/U or letter grading.

M251. Research and Development Policy. (4) (Same as Public Policy M280A) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting attention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

252. Special Topics in Management Theory. (4) Lecture, three hours. Designed for PhD students. Examination in depth of problems or issues of current concern in management theory. Emphasis on recent contributions to research, and methodology of special interest to advanced PhD candidates, academic staff, or distinguished visiting faculty. May be repeated for credit. S/U or letter grading.

253. Field Research in Organizations and Management. (4) Seminar, three hours. Designed for PhD students. Immersion in discipline and practice of using field data to conduct management research. Students become more informed users and reviewers of variety of methodological approaches. Students gain familiarity with approaching companies to partner on research, gathering and preparing to analyze field data, and what to expect in review process for paper that uses field data. Content of research discussed could extend to other fields (e.g., strategy, psychology, judgment and decision making). S/U or letter grading.


255. Information and Trading in Financial Markets. (4) Lecture, three hours. Consideration of research on how information is processed in financial markets. Emphasis on classical models, as well as psychological approaches to stock price movements. Review of behavioral interpretations of trading behavior and price patterns in financial markets. S/U or letter grading.

260. Behavioral Economics: Individuals, Organizations, and Markets. (4) Lecture, three hours. Study of how predictions of behavior and optimal economic policy differ when traditional economic assumptions (often selfish, unbounded rationality) are replaced with more psychologically realistic assumptions drawn from lab and world. Special attention to way in which these modified assumptions can be incorporated into broadly applicable and parsimonious models of human behavior, and what they imply for markets, management, and public policy. Letter grading.

261. Judgment and Decision Making. (4) Lecture, three hours. Introduction to behavioral research on judgment and decision making, with special attention to conditions of uncertainty. Includes research by Daniel Kahneman and Amos Tversky for which Kahneman was awarded 2002 Nobel Memorial Prize in Economics, and some of work for which Richard Thaler was cited in his Nobel Memorial Prize in 2017. Examination of recent descriptive models of judgment and decision making using rational choice theory as point of departure. Examination of classic articles and current controversies. Letter grading.

262. Applied Analysis for Behavioral Research. (4) Lecture, three hours. Provides foundation for statistical analyses that are conducted as part of career as behavioral researcher. Heavy focus on understanding and using statistical analyses, not deriving proofs. Letter grading.

263. Choice Architecture and Nudging in Field. (4) Lecture, three hours. Application of behavioral science to field experimentation. Designed to bridge crucial educational gap for PhD students. Includes identifying research partners, achieving scale, dealing with logistical challenges, and collaborating with outside institutions who may have different goals. Letter grading.

270. Political Economy of Economic Development. (4) Lecture, three hours. Use of historical and comparative approach to understanding evolution and development of societies. Examination of research that asks whether differences in economic development today have historical roots. Study of different mechanisms and channels through which history matters. Particular attention to role of domestic institutions and culture in explaining historical persistence. Letter grading.

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)
Mark S. Goorsky, PhD
Vijay Gupta, PhD
Ximin He, PhD
Yu Huang, PhD
Subramanian S. Iyer, PhD (Charles P. Reames Endowed Professor of Electrical Engineering)
Ioanna Kakoulli, DPhil
Richard B. Kaner, PhD
Suneel Kodambaka, PhD
Xiaochun Li, PhD (Raytheon Company Professor of Mechanical Engineering)
Jaime Marian, PhD
Ali Mosleh, PhD, NAE (Evelyn Knight Professor of Engineering)
Qibing Pei, PhD
Paul S. Weiss, PhD (Presidential Professor of Chemistry)
Benjamin M. Wu, DDS, PhD
Ya-Hong Xie, PhD
Ja-Hsing Yang, PhD
Yang Yang, PhD (Carol and Lawrence E. Tannas, Jr., Endowed Professor of Engineering)

Professors Emeriti
Alan J. Ardell, PhD
Nasr M. Ghoniem, PhD
Kanji Ono, PhD

Assistant Professors
Amartya S. Banerjee, PhD
Aaswath P. Raman, PhD

Adjunct Associate Professors
Eric P. Bescher, PhD
The Materials Engineering major is a designated capstone major. Students undertake two individual projects involving materials selection, treatment, and serviceability. Successful completion requires working knowledge of physical properties of materials and strategies and methodologies of using materials properties in the materials selection process. Students learn and work independently and practice leadership and teamwork in and across disciplines. They are also expected to communicate effectively in oral, graphic, and written forms.

Learning Outcomes
The Materials Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, natural science, and engineering to analysis of materials and other systems
- Learn and work independently
- Practice leadership and teamwork in and across disciplines
- Design of a system, component, or process to meet desired needs
- Effective oral, graphic, and written communication
- Identification, formulation, and solution of engineering problems

Requirements
Materials Engineering Option
Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 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, 131, 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 Samuel 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 optoelectronic materials, or structural materials.

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. Microscopy and various property experiments and discussions on current research and various materials discussed in conjunction with such applications as biomedical sensors, pollution control, and microelectronics. Letter grading.

13L. Cultural (Materials) Science Investigations in Art and Archaeology. (6) Laboratory, four hours; discussion, two hours; site visits, four hours; outside study, five hours. Focus on portable X-ray fluorescence (XRF) and ultraviolet, visible, near infrared (UV/
Vis/NIR) spectroscopy and forensic imaging, with emphasis on fundamentals of techniques, data collection and interpretation, and effects of weathering and post depositional and taphonomic processes to help an- swer questions related to ancient materials manufac- turing and performance, and their interaction with environment. Experimental techniques and analysis of materials through: X-ray fluorescence spectroscopy (XRF); fiber optic reflectance spectroscopy (FOR); and forensic multispectral imaging. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current interest, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

33W. Materials Structure and Technology in Ar- chaeology and Architecture. (Formerly numbered 33.) Seminar; one hour; laboratory; two hours; dis- cussion, one hour; outside study, nine hours. Requi- site: English Composition 3. Exploration of three classes of materials and composites, and relationships that exist between structural elements of mate- rials and their properties: vitreous materials, building material binders, and pigments and colorants. Through study of ancient materials and technology in archaeology and architecture, exploration of relationships among processing, structure, properties, and performance for: vitreous materials—ceramics, frits, and glass; building material binders—aircrete; lime- based mortars; hydraulic lime mortars and concretes; and pigments and colorants (natural and synthetic organic, inorganic, and organic/ inorganic hybrids). Through reverse engineering pro- cessing, examination of engineering materials (their micro/nano structure and physical, chemical, and mechanical properties), and their durability and sustainability as time-proven examples of technology innovation and design. Letter grading.

90L. Physical Measurement in Materials Engineer- ing. (2) Laboratory; four hours; outside study, two hours. Various physical measurement methods used in materials science and engineering. Mechanical, thermal, electrical, magnetic, and optical techniques. 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 longer-term student project with faculty mentor. Students must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


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 characteri- zation and fundamentals of crystallography, properties of X rays, X-ray scattering; powder method, Laue method; determination of crystal structures; phase di- agram determination; high-resolution X-ray diffraction methods; X-ray spectroscopy; design of materials characterization procedures. Letter grading.

110L. Introduction to Materials Characterization A Laboratory. (2) Laboratory; four hours; outside study, two hours. Enforced requisite: course 104. Experi- mental techniques and analysis of materials through X-ray scattering techniques; powder method, crystal- structure determination, high-resolution X-ray diffrac- tion methods, and soft X-rays. Letter grading.

C111. Introduction to Materials Characterization B (Electronic Microscopy). (4) Formerly numbered 111.) Lecture; four hours; outside study, eight hours. Char- acting of microstructure and microchemistry of materials; transmission electron microscopy; recip- rocal lattice, electron diffraction, stereographic projec- tion, direct observation of defects in crystals, replicas; scanning electron microscopy; emissive and reflective microscopes. Letter grading.

C111L. Introduction to Materials Characterization B Laboratory. (2) Lecture; four hours; outside study, two hours. Enforced requisite: course 111. Experi- mental techniques and analysis of materials through electron microscopy. Determination of morphology, microstructure, and crystallinity of samples. Letter grading.


120. Physics of Materials. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. En- forced requisites: courses 104, 110 (or Chemistry 113A). Introduction to electrical, optical, and magnetic properties of solids. Free electron model, introduction to band theory and Schrödinger wave equation. Crystal bonding and lattice vibrations. Mechanisms and characterization of electrical conductivity, optical absorption, magnetic behavior, dielectric properties, and p-n junctions. Letter grading.

121. Materials Science of Semiconductors. (4) Lec- ture, four hours; discussion; one hour; outside study, seven hours. Enforced requisite: course 120. Structure and properties of elemental and compound semicon- ductors. Electrical and optical properties, defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and ion-beam techniques, band-gap engi- neering, development of new materials for optoelec- tronic applications. Letter grading.

121L. Materials Science of Semiconductors Labo- ratory. (2) Lecture; 30 minutes; discussion; 30 min- utes; laboratory; two hours; outside study, three hours. Enforced corequisite: course 121. Experiments con- ducted on materials characterization, including mea- surements of electronic properties, band gap, and thin film biaxial modulus 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 materials and fabrication of electronic devices; preparation and characterization of silicon, III-V compounds, and films. Discussion of prin- ciples of CVD, MOVCD, LPE, and MBE; metals and di- electrics. Letter grading.

130. Phase Relations in Solids. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. En- forced requisite: course 104. Summary of thermody- namic laws, equilibrium criteria, solution thermody- namics, mass-action law, binary and ternary phase di- agrams, phase transformations, and mechanical behavior emphasized as part of successful design. Letter grading.

131. Diffusion and Diffusion-Controlled Reactions. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. Enforced requisite: course 130 or Chemistry 110A. Diffusion in metals and ionic solids, migration and growth theories, vacancy formation from solid solution, eutectoid decomposition, design of heat treatment processes of alloys, growth of intermediate phases, gas-solid reactions, design of oxidation-resis- tant alloys, recrystallization, and grain growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory; two hours; outside study, four hours. Enforced requisite: course 131. Design of heat-treating cycles and performing experiments to study interdiffusion, growth of intermediate phases, recrystallization, and grain growth in metals. Analysis of data. Comparison of results with theory. Letter grading.


140A. Materials Selection and Engineering Design Laboratory. (2) Lecture; two hours; laboratory; two hours; out- side study, five hours. Enforced requisites: two courses from 132, 150, 160. Explicit guidance among myriad materials available for design in engineering. Properties and applications of steels, nonferro-alous alloys, polymeric, ceramic, and composite materials, coatings. Materials selection, treatment, and service- ability emphasized as part of successful design. Design projects. Letter grading.

140B. Materials Selection and Engineering Design B. (3) Formerly numbered 140B.) Lecture; two hours; laboratory; two hours; outside study, five hours. En- forced requisite: course 140A. Explicit guidance among myriad materials available for design in engi- neering. Properties and applications of steels, nonfer- rous alloys, polymeric, ceramic, and composite mate- rials; applications of metals, nonferrous al- lows, polymeric, ceramic, and composite materials, coatings. Materials selection, treatment, and service- ability emphasized as part of successful design. Design projects. Letter grading.

141L. Computer Methods and Instrumentation in Materials Science. (2) Laboratory; four hours. Requisit- 100: knowledge of BASIC or C or assembly lan- guage. Limited to junior/senior Materials Science and Engineering majors. Interface 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 requisites: course 104, Mechanical and Aerospace Engineering 101. Plastic flow of metals under simple and combined loading, strain rate and temperature effects, dislocations, fracture, microstruc- tural effects, mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (2) Labora- tory; four hours. Requisites: courses 90L, 143A (may be taken concurrently). Methods of characterizing me- chanical behavior of various materials; elastic and plastic deformation, fracture toughness, fatigue, and creep. Letter grading.

150. Introduction to Polymers. (4) Lecture; four hours; discussion; one hour; outside study, seven hours. Po- lymers: characteristics, molecular weight and distribu- tion. Chemical structure and properties of polymer, structure crystallinity, and morphology and their effects on physical properties. Glassy polymers, springy polym- ers, elastomers, adhesive. Fiber forming polymers, polymer processing technology, plasticization. Letter grading.

150. 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 engineering materials, processing techniques, and unique properties. Examination of design and control of properties for certain specific applications in engineering. Letter grading.

150L. Laboratory in Ceramics. (2) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 104, 130. Topics include some specific processes used in fabrication of ceramics and glasses. Laboratory is designed to achieve research and development of composite materials with fiber and particulate reinforcement. Properties of fiber, matrix, and interfaces. Selection of macrostructures and material systems. Letter grading.

161. Processing of 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 engineering materials, processing techniques, and unique properties. Examination of design and control of properties for certain specific applications in engineering. 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 ceramic-to-metal and ceramic-to-carbon electrical contacts; magnetic ceramics; ferromagnetic and ferrite ceramics; ferroelectric ceramics and electro-optic devices; optical waveguide applications and designs. Letter grading.

163. Chemical Engineering Processes. (4) (Same as Chemical Engineering CM114.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 130 (or Mechanical and Aerospace Engineering 105A), Chemical Engineering 102B. Fundamentals of process engineering and computer applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical behavior on metal and semiconductor surfaces, electrodeposition, electrodeless deposition, electrolysis, fuel cells, aqueous and nonaqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM263. Letter grading.

170. Engaging Elements of Communication: Oral Communication. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive oral presentation and communication skills provided by building on strengths of individual personal styles in creation of positive interpersonal relations. Skill set prepares students for different types of academic and professional settings. Learning environment is high supportive and interactive as it helps students creatively develop 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-processes (including forensic photography) and advanced new imaging technologies. Letter grading.

171. Engaging Elements of Communication: Writing for Technical Community. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive written skills on subjects specific to field of materials science and engineering. Students write review term paper in selected subject field of materials science and engineering from given set of journals. Research process approaches course is led 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.

188. Special Courses in Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Specific 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) 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 included. May be repeated once for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


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 by transmission and scanning electron microscopy, reciprocal lattice, electron diffraction, stereographic projection, direct observation of defects in crystals, replicas; scanning electron microscopy: emissive and reflective mode; chemical analysis; electron optics of both instruments. Concurrently scheduled with course C111. Letter grading.

C212. Cultural Materials Science II: Characterization Methods in Conservation of Materials. (4) (Formerly numbered CM212.) Lecture, four hours. Requisite: course 120. Introduction to modern and contemporary techniques appropriate to materials science and engineering for undergraduate students, specific topics in materials characterization: optical and electron microscopy, X-ray and electron spectroscopy, X-ray diffraction, infra-red reflectance spectroscopy and multispectral imaging spectroscopy, chromatography, design of archaeological and ethnographic materials characterization procedures. Concurrently scheduled with course C112. Letter grading.

M213. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) (Formerly numbered M213.) 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-processes (including forensic photography) and advanced new imaging technologies. Letter grading.


214. Structure, Properties, and Deterioration of Materials: Rock Art, Wall Paintings, Mosaics. (2) (Formerly numbered M214.) Lecture, three hours; review sessions, one hour. Recommended preparation: basic knowledge of general chemistry and materials science and technology. Structure (crystals, molecular arrangement, and microstructure), and properties explained using basic concepts from physics and chemistry. Intrinsic attributes and re-sistances to weathering. Causes, sources, and mechanisms of deterioration (physical, chemical, and bio-chemical). Letter grading.


216. Science of Conservation Materials and Methods I. (4) (Formerly numbered M216.) Lecture, two hours; laboratory, two hours. Recommended requisite: laboratory safety fundamental concepts course by Office of Environment, Health, and Safety IV (or IV). Introduction to physical, chemical, and mechanical properties of conservation materials (employed for preservation of archaeological and cultural materials) and their aging
characteristics. Science and application methods of traditional organic and inorganic systems and introduction of novel technology based on biomimeralization processes and nanostructured materials. Letter grading.

221. Science of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120, Study of major physical and chemical principles affecting properties and performance of semiconductor materials. Topics include bonding, properties of key materials for chip technology, optical and transport properties, novel materials systems, and characterization. Letter grading.

222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120, 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.

223. Materials Science of Thin Films. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120, 131. Film structure, and property correlations 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.

244. Deposition Technologies and Their Applications. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Examination of physics behind modern thin film deposition technologies on vapor phase transport. Vacuum technology and gas kinetics. Deposition methods used in high-technology applications, deposition processes, and experimental details of physical vapor deposition (PVD), chemical vapor deposition (CVD), plasma-enhanced chemical vapor deposition processes. Letter grading.


226. Si-CMOS Technology: Selected Topics in Materials Science. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electrical Engineering 221B. Requisites: courses 130, 131, 200, 221, 222. Selected topics in materials science from modern Si-CMOS technology, including technological challenges in high k/metal gate stacks, strained SiFETs, SOI and three-dimensional FETs, source/drain engineering including transient-enhanced diffusion, nonvolatile memory, and metallization for ohmic contacts. Letter grading.

243A. Foundry Materials. (4) Lecture, four hours; laboratory, two hours; outside study, four hours. Requisite: course 143A. Engineering and scientific aspects of crack nucleation, slow crack growth, and unstable crack propagation. Mechanisms of plastic deformation, fatigue, fracture in reactive environments, alloy development, fracture-safe design. Letter grading.

246C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 143A. Elastic and plastic behavior of crystals, geometry, mechanics, and interaction of dislocations, mechanisms of yielding, hardening, and other strengthening Letter grading.

246A. Mechanical Properties of Nonmetallic Crystalline Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 160. Materials and exnerfactorial factors affecting mechanical properties of nonmetallic crystalline solids, including atomic bonding and 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. Requisite: 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 glass to structure relating. Letter grading.

246D. Electronic and Optical Properties of Ceramics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Limit to graduate students. 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 cells, and multiple junction solar cells provided to increase student knowledge. Tour of research laboratory included. Letter grading.


247. Nanostructure Materials: Challenges and Opportunities. (4) Lecture, four hours; discussion, eight hours. Limit to graduate students. Literature studies of up-to-date subjects in novel materials and their potential applications, including nanostructured materials and biomaterials. Letter grading.


250B. Advanced Materials. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Preparation: basic knowledge of quantum mechanics. Letter grading.
Mathematics
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6363 Mathematical Sciences
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Los Angeles, CA 90095-1555
Mathematics
310-825-4701
Mario Bonk, PhD, Chair
Inwon C. Kim, PhD, Graduate Vice Chair
Igor Pak, PhD, Administrative Vice Chair
Marcus L. Roper, PhD, Undergraduate Vice Chair
Michael J. Andrews, PhD, Director, Program in Computing
Andrea L. Bertozzi, PhD, Director, Applied Mathematics
Faculty Roster
Professors
Christopher R. Anderson, 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
Artem Chernikov, PhD
Tom Chou, PhD
Lara Dolecek, PhD
Richard S. Elman, PhD
Wilfrid D. Gangbo, PhD
Robert E. Greene, PhD
Michael A. Hill, PhD
Ko Honda, PhD
Chandrashekar Khare, PhD
Mikhail Khitrin, PhD
Rowan B. Killip, PhD
Inwon C. Kim, PhD
Ker-Chau Li, PhD
Kefeng Liu, PhD
Andrew S. Marks, 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
Rafail Ostrovsky, PhD
Igor Pak, PhD
Peter Petersen, PhD
Sorin T. Popa, PhD (Yuki, Kyoko and Masamichi Takesaki Endowed Professor of Operator Algebras)
Mason A. Porter, PhD
Marcus L. Roper, PhD
Raphael A. Rouquier, PhD
Sucharit Sarkar, PhD
Romyar T. Sharifi, PhD
Dimitri Y. Shlyakhtenko, PhD
Terence C. Tao, PhD (James and Carol Collins Professor in College of Letters and Science)
Joseph M. Teran, PhD
Burt Totaro, PhD
Lieven Vandenberghe, PhD
Luminita A. Vese, PhD
Monica Viscan, PhD
Jun Yin, 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
William D. Duke, 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
David A. Gieseker, PhD
Mark L. Green, PhD
Nathaniel Grossman, PhD
Alfred W. Hales, PhD
Haruo Hida, PhD
Robert I. Jennrich, PhD
Alan J. Laub, PhD
Donald A. Martin, PhD
Yiannis N. Moschovakis, PhD
James V. Ralston, 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
Associate Professors
Alyson K. Fletcher, PhD
Chenfanhui Jiang, PhD
Gang Liu, PhD
Georg Menz, PhD
Guido F. Montufar, PhD
Assistant Professors
Pavel Galashin, PhD
Joaquín L. Moraga, PhD
Hong Wang, PhD
Lecturer SOE
William J. Conley, PhD
Adjunct Professor
Christian Ratsch, PhD
Adjunct Assistant Professor
Mary P. Greene, MS
Overview
Gauss called mathematics the “queen of the sciences.” It has provided powerful intellectual tools that have made possible tremendous advances in modern science and technology. The Department of Mathematics offers courses of study that introduce students to the fundamentals of mathematics and allow them to master
Undergraduate Study

In addition to its seven majors, the department also hosts the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics major.

Undergraduate Policies

Preliminary Examination in Mathematics

If students wish to enroll in Mathematics 1, 3A, 31A, or 31AL, they must pass the Mathematics Diagnostic Test.

For specific information about the online test, refer to the Schedule of Classes or the department website; or contact the Mathematics Student Services Office, 6356 Mathematical Sciences.

Advanced Placement in Calculus

Students who have taken the Advanced Placement (AP) Calculus AB Test and obtained a score of 3 or higher in credit and Mathematics 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 3 or higher in credit and Mathematics 31A, 31B 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 3 or higher in credit and Mathematics 31A, 31B 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 3 or higher in credit and Mathematics 31A, 31B or 31AL at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test).

Honors Courses

The department offers lower-division honors courses in calculus, and upper-division honors courses in algebra and analysis. The courses are intended for students who desire a broad, comprehensive introduction to these topics.

Program in Computing Courses

Program in Computing 1 is designed for students who wish to perform basic computer programming, especially in C++

Ability to synthesize material, solve problems, and think abstractly

Familiarity with linear algebra, techniques of proof, and foundations of real analysis

Ability to perform basic computer programming, especially in C++

Entry to the Major

Admission

Current UCLA students need to apply for the Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one calculus-based phys-
ics (mechanics) course, one C++ programming course, and two courses from general chemistry (mechanics), economics, symbolic logic, and calculus-based physics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements

Preparation for the Major


The Major

Required: Mathematics 110A, 110B, 115A, 120A, 131A, 131B, 132, and at least five elective courses from 106 through 199 and Statistics 100A through 102C.

Honors Program

The program entails taking a specified sequence of courses as part of the major requirements. Completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C– or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major

Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Honors Program

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better. Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.

Applied Mathematics BS

The Applied Mathematics major concerns applications of mathematics to the sciences, including the life, social and physical sciences, and engineering.

Learning Outcomes

The Applied Mathematics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++

Entry to the Major

Admission

Current UCLA students need to apply for the Applied Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Applied Mathematics pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Applied Mathematics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Applied Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: years of calculus for majors, two calculus-based physics courses, one C++ programming course, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, Program in Computing 10A, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C.

The Major

Required: Mathematics 115A, 131A, either 131B or 132, 142; two two-term sequences courses 151A and 151B, or Statistics 100A and 100B, and while enrolled in UCLA regular session at the time of application.

Honors Program

The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2)
The Data Theory major is a designated capstone major. Students work in small teams to solve a large, open-ended data science problem for community- or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical model or algorithmic approach. Alternatively, students may undertake research on the foundations of data science, studying advanced topics and writing a senior thesis.

Learning Outcomes
The Data Theory major has the following learning outcomes:

- Understanding of mathematical and statistical bases of most common methods of data science
- Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
- Skillfully manage data
- Development, comparison, and testing of data-driven models to solve problems
- Understanding and explanation of variability when fitting and interpreting models of real-world systems
- Carrying out of reproducible data analysis using accepted practices of research community
- Written and verbal communication of findings of analyses
- Identification of areas of active research in data science
- Insightfully address problems concerning ethics of data use and storage, including data privacy and security
- Demonstrated mastery of concepts and skills of machine learning, modeling and supervised learning, dimension reduction and unsupervised learning, and deep learning
- Demonstrated familiarity with numerous software tools used in statistical and data science work and research
- Demonstrated knowledge of mathematical foundations, including pure and applied linear algebra, basic analysis, probability, and optimization theory
- Study and evaluation of proofs of mathematical and statistical results employed in data theory
- Work effectively in a team on a data science problem
- Demonstrated eligibility for graduate study in applied mathematical science or statistical science

Entry to the Major
Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory pre-major at the time they apply for admission are automatically admitted to the pre-major. Students must visit the student services office of either the Mathematics Department or Statistics Department in order to petition to enter the major.

First-Year Students
To enter the major, students must petition after they have completed the preparation for the major courses. Students who have an overall grade-point average (GPA) of at least 3.3 in the preparation for the major courses, and have completed all preparation for the major courses before the fall quarter of their third year at UCLA, will be admitted to the major.

Students whose overall GPA is between 2.7 and 3.3, or who fail to complete the preparation courses before the fall quarter of their third year, are admitted only if space is available. All students must petition before they have earned 160 units, or by the winter quarter of their junior year, whichever comes first. Only grades for courses that are taken at the University of California, including UC summer schools, are counted for this GPA computation.

Transfer Students
Transfer applicants to the Data Theory major are admitted to the pre-major. Applicants with 90 or more units must have completed the following by the end of the spring term prior to entry to UCLA: two years of calculus for physical science and/or engineering majors, one linear algebra course, one C++ programming course, one statistics course.

Transfer students must have completed all preparation for the major coursework, and must have passed Mathematics 42, 115A, and at least 4 units of upper-division coursework required for this major with at least a 3.3 GPA, in order to be eligible to petition to enter the major. Transfer students will be admitted to the major if they satisfy these requirements. Transfer students who fail to meet these criteria for automatic admission will be admitted only if resources allow. Transfer students must petition to enter the major no later than the spring quarter of their 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.

Requirements
Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 42, 115A; Program in Computing 10A; one course selected from Statistics 10, 12, 13, 15; Statistics 20, 21.

The Major
Required: Mathematics 118, 131A, 156, Statistics 101A, 101C, 102A, 102B, 147, 184; one two-quarter sequence: Mathematics 170E and 170S, or Statistics 100A and 100B; one elective selected from Mathematics 151A, 151B, 164, 168, 171, 174E, 178A, 178B, 178C, 179 or 182; one elective selected from Statistics 100C, 101B, 102C, or C151 through 199 (except Statistics 182, 186, or 189); two additional electives from either of the above lists; a capstone course (Mathematics M148 or Statistics M148), to be taken during the final year.

Policies
Preparation for the Major
Each course must be completed with a grade of C or better and an overall grade-point average of at least 2.7. All students must take Mathematics 42 at UCLA. The major is limited in size according to available resources.
Repetition of more than two mathematics or statistics sequenced courses or of any mathematics or statistics sequenced course more than once results in automatic dismissal from the major.

The Major
Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

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

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 of probability and financial and insurance mathematics at the level needed to pass of the first three preliminary actuarial examinations by the Society of Actuaries
- Strong content knowledge of the fourth and fifth preliminary examinations.
- Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures
- Ability to perform basic computer programming, especially in C++

Entry to the Major
Admission
Current UCLA students need to apply for the Financial Actuarial Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Financial Actuarial Mathematics pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, and one course selected from Economics 11N or 42 or 61 or 70, 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, 10B or 16A).

Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Financial Actuarial Mathematics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Financial Actuarial Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one C++ programming course, one microeconomic theory course, one macroeconomics course, and two terms of accounting principle.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements
Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, and one course selected from Mathematics 11N, 42, 61, 70, Economics 1, 2, 11, Management 1A, Program in Computing 10A, 10B or 16A.

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.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C- in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office).

Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Each course must be taken for a letter grade.

The 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.

The Major
Each course must be taken for a letter grade.

Transfers credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the ten Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the two elective courses.

Mathematics of Computation BS
The Mathematics of Computation major is for mathematics students who have a secondary interest in computing.

Learning Outcomes
The Mathematics of Computation major has the following learning outcomes:
- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++

Entry to the Major
Admission
Current UCLA students need to apply for the Mathematics of Computation major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics of Computation pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades
of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics of Computation pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Mathematics of Computation major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements
Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A, 1B, Program in Computing 10A, 10B, 10C, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C.

The Major
Required: Eleven Mathematics Department courses, including Mathematics 115A, 131A, 131B or 132, 151A, 151B, and six courses from 106 through 199 and Statistics 100A through 101C; three upper-division computer science courses (12 units).

Honors Program
The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Policies
Preparation for the Major
Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major
Each course must be taken for a letter grade. The 14 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Honors Program
Students who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better.

Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.

Mathematics/Applied Science BS
The Mathematics/Applied Science major is designed for students with a substantial interest in mathematics and its applications to a particular field. It is an individual major in that students, in consultation with a faculty adviser, design their own program. They may also select one of the established programs: mathematics/history of science plan or medical and life sciences plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric and oceanic sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics.

Students interested in designing an individual program should meet with the undergraduate adviser, 6356 Mathematical Sciences, during their sophomore year. A proposed program is drawn up, then forwarded to the mathematics/applied science curriculum committee for approval. All programs must include the following preparation for the major and major courses.

Learning Outcomes
The Mathematics/Applied Science major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to synthesize material, solve problems, and think abstractly
- Ability to perform basic computer programming, especially in C++
- Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures

Entry to the Major
Admission
Current UCLA students need to apply for the Mathematics/Applied Science major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics/Applied Science pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Applied Science pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Mathematics/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, 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.
Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Policies**

**Preparation for the Major**

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**History of Science Plan**

Each course must be taken for a letter grade. The 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.

**Medical and Life Sciences Plan**

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.

**Mathematics for Teaching BS**

The Mathematics for Teaching major is designed primarily for students planning to teach mathematics at the high school level. It provides exposure to a broad range of mathematical topics, especially those appropriate for the prospective teacher. Students planning to pursue graduate studies in mathematics or related fields are encouraged to enter the Mathematics, Applied Mathematics, or Mathematics of Computation major.

**Capstone Major**

The Mathematics for Teaching major is a designated capstone major. In their senior year students complete a year-long course sequence that culminates in a model lesson presentation, paper, and portfolio. Through their capstone work, students demonstrate their familiarity with research and current issues in mathematics education, as well as their capacities to problem solve; reason quantitatively, geometrically, and algebraically; construct viable arguments; critique others’ reasoning; and use tools strategically.

**Learning Outcomes**

The Mathematics for Teaching major has the following learning outcomes:

- Strong mathematical content knowledge
- Sound theoretical and practical background for mathematics expected to be taught in secondary schools
- Understanding of the importance of mathematical thinking to design teaching to imbue students with a problem-solving and analytical spirit
- Familiarity with pedagogical research and ability to apply it to classroom work
- Ability to effectively plan lessons
- Preparation and experience in different modes of instruction
- Ability to use mathematical sophistication to shape lessons

**Entry to the Major**

Admission

Current UCLA students need to apply for the Mathematics for Teaching major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics for Teaching pre-majors.
Computing Specialization

Required: Mathematics 105A, 105B, 105C, 110A or 117, Mathematics 149 through 158, and at least two courses from Mathematics 115A through 199.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics for Teaching major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, one C++ programming course, and three courses from calculus-based physics, general chemistry for majors, and computing.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A or 5A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Physics 1B, 1C, 5B, 5C, Program in Computing 10B through 97.

The Major

Required: Mathematics 106, 110A or 117, 115A, 120A or 123, 131A, 170A or Statistics 100A, Statistics 100B, one course from Mathematics 110B through 191H or Statistics 100C, one course from Mathematics 131B through 136, one course from 142 through 167, and a capstone series in the senior year (courses 105A, 105B, 105C).

Computing Specialization

 Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 158, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major

Each course must be taken for a letter grade. The 13 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Undergraduate Minors

Mathematics Minor

The Mathematics minor is designed to provide students with the opportunity to widen their background and general comprehension of the role of mathematics in various disciplines.

Admission

To enter the minor, students must have completed Mathematics 115A with a grade of C or better. If Mathematics 115A was not completed at UCLA, students must show proof that they completed an equivalent course with a grade of C or better.

The Minor

Required Upper-Division Courses (29 units): Mathematics 105A, 105B, 105C, 110A or 117, 115A, 120A or 123, 131A.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade with a grade of C– or better in each, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Mathematics MA, CPhil, PhD

Requirements

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

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


2. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: three and one-half years of high school mathematics (including trigonometry). Enforced requisite: successful completion of Mathematics Diagnostic Test (score of 48 or better) or course 1 with grade of C– or better. Not open for credit to students with credit in another calculus sequence. Modeling with functions, limits, and derivatives, decisions and optimization in biology, derivative rules and tools. P/NP or letter grading.

3. Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics (including some coordinate geometry and trigonometry). Enforced requisite: 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 31A. Honors course parallel to course 31B, P/NP or letter grading.

31B. Integration and Infinite Series. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31B. Calculus for applications to economics. Partial differentiation, implicit functions, exponential and logarithmic functions, extrema, optimization, constrained optimization. P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Requisite: course 31A with grade of C– or better. Introduction to differential calculus of several variables, vector field theory. P/NP or letter grading.

32AH-32BH. Calculus of Several Variables (Honors). (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, and 32A, with grades of B or better. Honors sequence parallel to courses 32A, 32B, P/NP or letter grading.

32B. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of C– or better. Introduction to integral calculus of several variables, line and surface integrals. P/NP or letter grading.

32T. Essential Calculus for Mathematical Biologists. (4) (Same as Mathematics M32 and Life Sciences M32.) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30A, 3B, 30B. Not open to students with credit for course 31A, 31B, 32A. Topics for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.

33A. Linear Algebra and Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 31B. Linear algebra and applications. Vectors and matrices, determinants, similarity, characteristic and minimal polynomials, diagonalization, change of basis, subspaces, eigenvalues and eigenvectors; matrix diagonalization, and symmetric matrices. P/NP or letter grading.

33AH. Linear Algebra and Applications (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31B. Honors course parallel to course 33A. P/NP or letter grading.

33B. Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisite: course 31B with grade of C– or better. Highly recommended: course 33A. First-order linear differential equations; second-order, linear differential equations with constant coefficients; power series solutions; linear systems, P/NP or letter grading.

34. Introduction to Data-Driven Mathematical Modeling: Life, Universe, and Everything. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A, 32B, 33A, one statistics course from Statistics 31, 32, 33. Course from Computer Science 31, Program in Computing 10A, Statistics 20. Introduction to data-driven mathematical modeling combining data analysis with theoretical mathematics and computer science: stochastic processes, optimization, topology. This course is designed to provide students with fundamental skills in mathematical modeling and data analysis. P/NP or letter grading.

34A. Introduction to Data-Driven Mathematical Modeling: Life, Universe, and Everything. (4) Lecture, three hours; discussion, one hour. Requisite: courses 31A, 31B, 32A, 32B, 33A, one statistics course from Statistics 31, 32, 33. Course from Computer Science 31, Program in Computing 10A, Statistics 20. Introduction to data-driven mathematical modeling combining data analysis with theoretical mathematics and computer science: stochastic processes, optimization, topology. This course is designed to provide students with fundamental skills in mathematical modeling and data analysis. P/NP or letter grading.

35. Transition to Upper-Division Mathematics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: courses 32A, 32B. Not open for credit to students with credit for course 31A or 32A. Introduction to rigorous methods of proof-based upper-division dynamical systems, and introduction to discrete and continuous stochastic models. Examples drawn from many fields and practice problems from Mathematical Contest in Modeling. P/NP or letter grading.

61. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A, 32B, 33A, 33B. Not open for 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, and applications. P/NP or letter grading.

70. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Introduction to probability through applications and examples. Topics include set theory, counting methods, statistics, chance trees, conditional probability, Bayes’ rule, continuous and discrete random variables, jointly distributed random variables, multivariate normal and conditional distributions. In-depth discussion of betting schemes in gambling, occurrence of rare events, coincidences, and statistical predictions. P/NP or letter grading.

73XPF. Key Issues in K-12 Mathematics. (3) (Formerly numbered 73XSL) Seminar, two hours; fieldwork, two hours. Introduction to K-12 mathematics activity in U.S. Cultivation of interest in teaching through exploration of sequences of mathematical content and habits of mind taught by sequences of topics in current California State Standards in Mathematics (CCSS-M), mathematical structures that underlie these sequences, and cognitive aspects of learning mathematics. Professional 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 room arranged by Cal Teach program. P/NP grading.

74XPF. Mathematics and Pedagogy for Teaching Elementary Mathematics. (3) (Formerly numbered 74XSL) Seminar, two hours; fieldwork, two hours. Development of professional mathematical and pedagogical understandings required to teach California’s K-5 mathematics curriculum. Exploration of K-5 mathematics with an eye to developing 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.

75XPF. Mathematics and Pedagogy for Teaching Middle School Mathematics. (3) Seminar, two hours; off-campus classroom observation and participation, two hours. Facilitates development of professional mathematical and pedagogical understandings required to teach California middle school mathematics curriculum. Exploration of topics in grades six through eight mathematics from prospective, practice with effective teaching strategies for all learners, and discussion of current research and standards in mathematics education. Clinical practice in local mathematics classrooms arranged by Cal Teach program. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through 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 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.

95. Transition to Upper-Division Mathematics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: 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.
tion mathematics courses. Basic logic; structure of formal systems, measure, and geometric transformations. Introduction to professional standards and current research for teaching secondary school mathematics. Letter grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 minutes. Requisites: courses 105A, 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; professional standards and current research for teaching secondary school mathematics. Letter grading.

105C. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 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; 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 Babylon and Greece, including place value 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. 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. Requisites: courses 110A. Algebro 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.

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, intersection to geometric constructions, and solvability by radicals.

111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisites: 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.

114. Computability Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A or Philosophy 135. Effectively calculable, Turing computable and recursive functions, Turing thesis. Normal form theorem; universal functions; unsolvability 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: course 110A or 131A or Philosophy 135. Introduction to mathematical logic, aiming primarily at completeness and incompleteness theorems of Gödel. Propositional and predicate logic; syntax and 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 131A 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. (5–5) 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; eigenvalue vector theory. 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 forms, quadratic forms; Euclidean and unitary spaces; symmetric skew and orthogonal linear transformations, polar decomposition.

115AH. Linear Algebra (Honors). (5) Lecture, three hours; discussion, two hours. Requisite: course 33A. May be applied toward graduation. P/NP 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 cryptology using methods of number theory, algebra, probability. Topics include symmetric and public-key cryptosystems, one-way functions, signatures, key exchange, groups, primes, pseudoprimes, primality tests, quadratic reciprocity, factoring, rho method, RSA, discrete logs. P/NP or letter grading.

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 42, 115A. Introduction to computational methods for data problems with focus on linear algebra and optimization. Linear vector spaces, inner products and forms, linear operators, eigenvalues and eigenvectors, linear transformations, PageRank, assorted other topics in matrices, linear programming, unconstrained optimization, constrained optimization, integer optimization, dynamic programming, and stochastic optimization. P/NP or letter grading.

Geometry and Topology

120A-120B. Differential Geometry. (4–4) Lecture, three hours; discussion, one hour. Requisite: courses 32B, 33B, 115A, 131A. Course 120A is requisite to 120B. Curves in 3-space, Frenet formulas, surfaces in 3-space, normal curvature, Gaussian curvature, congruence of curves and surfaces, geometry of surfaces, isometries, geodesics, Gauss/Bonnet theorem. P/NP or letter grading.

121. Introduction to Topology. (4) Requisite: course 113A. Metric and topological spaces, completeness, connectedness, compactness, continuity, homeomorphisms, topological properties.

123. Foundations of Geometry. (4) Lecture, three hours; discussion, one hour. Requisite: course 113A. Axiomatics, neutral (absolute) geometry, hyperbolic geometry, Poincaré model, independence of parallel postulate.

Analysis

131A-131B. Analysis. (4–4) Lecture, three hours; discussion, one hour. Requisite: courses 32B, 33B. Recommended: course 628 / Mathematics
115A. Rigorous introduction to foundations of real analysis; real numbers, point set topology in Euclidean space, functions, continuity. 131B. Requisites: courses 33B, 115A, 131A. Derivatives, Riemann integral, sequences and series of functions, power series, Fourier series.

131AH-131BH. Analysis (Honors). (4–4) Lecture, three hours; discussion, one hour. Requisites for course 131AH: courses 32B and 33B, with grades of B or better; Recommended: course 115A. Honors sequence parallel to courses 131A, 131B. P/NP or letter grading.

131C. Topics in Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B. Advanced study in analysis, such as Lebesgue integral, integration on manifolds, harmonic analysis. Content varies from year to year. May be repeated for credit by petition.

132. Complex Analysis for Applications. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to basic formulas and calculation procedures of complex analysis of one variable relevant to applications. Topics include Cauchy/Reimann equations, power series expansion, contour integrals, residue calculus.

132H. Complex Analysis (Honors). (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, and 131A, with grades of B or better. Specifically designed for students who have strong commitment to pursue graduate studies in mathematics. Introduces to complex analysis, with more emphasis on proofs. Honors course parallel to course 132. P/NP or letter grading.

133. Introduction to Fourier Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B, 131A. Fourier series, Fourier transform in one and several variables, finite Fourier transform, applications, in particular, to solving differential equations. Fourier inversion formula, Plancherel theorem, convergence of Fourier series, convolution. P/NP or letter grading.


136. Partial Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B. Linear partial differential equations, boundary and initial value problems; wave equation, heat equation, and Laplace equation; separation of variables, 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. Introduction to fundamental principles and spirit of applied mathematics. Emphasis on manner in which mathematical models are constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

146. Methods of Applied Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Integral equations, Green’s function, and calculus of variations. Selected applications from control theory, optics, dynamical systems, and other engineering problems.

146A. Experience of Data Science. (4) (Same as Statistics M146) Lecture, four hours. Requisites: courses 118, 131A, 156 or Statistics 101C, 170S or Statistics 100B, Statistics 101A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in data science terms, create mathematical models, analyze data, and report results. Students may elect to research areas of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collabora-tive skills, computational, and discussion of ethical issues. Letter grading.


151AH. Numerical Analysis Part 1 (Honors). (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A. Introduction to numerical algorithms including necessary skills to apply algorithms in statistics, imaging, data science, engineering, and related fields. Root finding, solving linear systems, interpolation, quadrature, and finding eigenvalues. MATLAB programming. P/NP or letter grading.

151BH. Numerical Analysis Part 2 (Honors). (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A or 115AH, 131A or 131H, 151A or 151AH, Computer Science 31 or Programming in Computing 10A or equivalent, with grades of B or better. Not open for credit to students with credit for course 151A. Rigorous introduction to numerical algorithms including necessary skills to apply algorithms in statistics, imaging, data science, engineering, and related fields. Root finding, solving linear systems, interpolation, quadrature, and finding eigenvalues. MATLAB programming. P/NP or letter grading.


154. Linear Programming. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B, 115A, 131A. Linear programming, optimality conditions for constrained problems. Additional topics from linear and nonlinear programming. P/NP or letter grading.

159S. Mathematical Game Theory. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Quantitative modeling of strategic interaction. Topics include extensive and normal form games, back-ground probability, lotteries, mixed strategies, pure and mixed Nash equilibria and refinements, bar-gaining; emphasis on economic examples. Optional topics include repeated games and evolutionary game theory. P/NP or letter grading.

168. Introduction to Networks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 117A, 170A or 170A (or Computer Engineering 131A or Statistics 100A). Introduction to net-work science (including theory, computation, and applications), which can be used to study complex systems of interacting agents. Study of networks in technology, social, information, biological, and mathema-tics involving basic structural features of networks, generative models of networks, network summary sta-tistics, centrality, random graphs, clustering, and dy-namical processes on networks. Introduction to ad-vanced topics as time permits. P/NP or letter grading.

Probability

170A. Probability Theory I. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33A, 131A. Not open to students with credit for course 170E, Electrical and Computer Engineering 131A, or Statistics 100A. Rigorous introduction to probability theory based on real analysis. Probability space, probability and conditional probability, independence, Bayes’ rule, discrete and continuous random variables 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, 170A. Continuation of presentation 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. Advance topics in probability theory. P/NP or letter grading.

170E. Introduction to Probability and Statistics 1: Probability. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 31B. Not open to students with credit for course 170A, Electrical and Computer Engineering 131A, or Statistics 100A. Introduction to probability theory and relevant topics rele-vant 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 33A, 170E or Statistics 100A. Not open to students with credit for Statistics 100B. Introduction to statistics. Topics include sampling, estimation (maximum likelihood and Bayesian) properties of estimators, regression, confidence intervals, hypotheses testing, analysis of vari-ance. P/NP or letter grading.

171. Stochastic Processes. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 170E (or 170A or Statistics 100A), Discrete Markov chains, continuous-time Markov chains, renewal theory. 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 general cash flows, rate of return, term structure of interest rates, 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. Requisite: courses 33A, 170A or 170E (or Statistics 100A), 175 or 177. Introduction to mathematics associated with long-term insurance coverages. Stochastic models, survival models, annuities, premium calculations and policy values, pension plans and retirement benefits. Letter grading.

178B. Foundations of Actuarial Mathematics: Additional Topics in Long-Term Actuarial Mathematics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 32B or 32E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

178SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 178B. 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.

185. Advanced Topics in 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. 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: Mathematics. (4) Lecture, discussion, one hour. Exploration of current topics in pedagogy and teaching methods. 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. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

192B. Collaborative Learning Theory and Practice. (2) Lecture, three hours. Limited to juniors/seniors. Internship to be supervised by Center for Community Learning and Mathematics Department. Students meet on regular basis with instructor, provide periodic reports of their experience, have assigned readings on mathematics education, and complete final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.

192C. Internships in Mathematics Education. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship to be supervised by Center for Community Learning and Mathematics Department. Students meet on regular basis with instructor, provide periodic reports of their experience, have assigned readings on mathematics education, and complete final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.


198SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research or Senior Project in Mathematics. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised independent 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 major requirements 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 students. Important ideas of algebra, geometry, and calculus leading effectively from elementary to modern mathematics. Approaches to number system, probability, geometric ideas, functions, permutations and combinations, counting principles, recurrence relations, and generating functions. Application to asymptotic and probabilistic enumeration. P/NP or letter grading.

Discrete Mathematics


182. Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 184 or 32A, and 61. Open for credit to students with credit for Computer Science 180. Graphs, greedy algorithms, divide and conquer algorithms, dynamic programming, network flow. Emphasis on designing efficient algorithms useful in diverse areas such as bioinformatics and allocation of resources. P/NP or letter grading.


Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium minor. 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 project. Contract for three units may be signed if faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enrollment restricted to USIE College/USA. 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.

192A. Introduction to Collaborative Learning Theory and Practice. (1) Formerly numbered 192A. Seminar, two hours. Enrolled in Computer Science 192A, Life Sciences 192A, and Physics 192S, 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 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 Mathematics Department. Students meet on regular basis with instructor, provide periodic reports of their experience, have assigned readings on mathematics education, and complete final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.

198A. Collaborative Learning Theory and Practice. (2) Tutorial, two hours. Limited to juniors/seniors. Course 192A (may be taken concurrently). Limited to students serving as learning assistants. Further exploration of current topics in pedagogy and education research. Emphasis on methods of learning in small groups and their practical application to supervise learning in UCLA mathematics courses. With instructor's guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and receive and generate feedback on their activities. May be repeated three times for credit. May not be used to fulfill elective requirement for any mathematics major. Letter grading.

197. Individual Studies in Mathematics. (2 to 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 mastery of subject matter required. May be repeated for maximum of 12 units, but no more than one 197 or 199 course may be applied toward major requirements for majors offered by Mathematics Department. Individual contract required. P/NP or letter grading.

Number Theory

205A-205B-205C. Number Theory. (4–4–4) Preparation: bachelor's degree in mathematics. Designed for mathematics/education program students. Important ideas of algebra, geometry, and calculus leading effectively from elementary to modern mathematics. Approaches to number system, probability, geometric ideas, functions, permutations and combinations, counting principles, recurrence relations, and generating functions. May not be applied toward MA degree requirements.


203. Master’s Linear Algebra. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of pure and applied linear algebra over fields. Applications to contemporary research. Preparation for linear algebra portion of UCLA Mathematics Basic Examination that is required of MA and PhD students. S/U or letter grading.

204. Master’s Analysis. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of analysis. 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.
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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 representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Arithmetic geometry, especially of modular curves. S/U or letter grading.


M209A. Cryptography. (4) (Same as Computer Science M282A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom functions and pseudorandom permutations, semantic security, public-key and private-key encryption schemes, 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.

M209B. Cryptographic Protocols. (4) (Same as Computer Science M282B.) Lecture, four hours. Requisite: course M209A. Consideration of advanced 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 in public-key cryptography, including chosen-ciphertext security; secure multiparty computation; dealing with dynamic adversary; nonamallability 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/Schreier; rings and ideals, factorization theory in integral domains, modules over principal ideal rings, Galois theory of fields, multilinear algebra, structure of algebra.

211. Structure of Rings. (4) Requisite: course 210A. Radical, irreducible modules and primitive rings, rings and algebras with minimum condition.

212A. Homological Algebra. (4) Lecture, three hours. Enforced requisite: course 210A. Modules over rings, homomorphisms and tensor products of modules, functors and derived functors, homological dimension of rings and modules, S/U or letter grading.

212B. Homological Algebra. (4) Lecture, three hours. Requisites: courses 210A, 210B, 210C, 212A. Advanced topics in modern homological algebra, such as triangulated categories, differential graded algebras as dg-categories, tilting theory and applications of group cohomology to representation theory, stable categories and modular representation theory, and other current topics. S/U or letter grading.

213A-213B. Theory of Groups. (4–4) Requisite: course 210A. Topics include representation theory, transfer theory, infinite Abelian groups, free products and presentations of groups, solvable and nilpotent groups, classical groups, algebraic groups.


217. Geometry and Physics. (4) (Same as Physics M226.) Lecture, three hours. Interdisciplinary course on topics at interface between physics quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supersymmetric gauge theory, Seiberg-Witten theory, conformal field theory, Calabi-Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.


218C. Topics in Discrete Mathematics. (4) 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, prime set systems, Ramsey theory, additive number theory combinatorial geometry, topological methods in combinatorics, entropy and other tools from information theory, discrete harmonic analysis and its applications to combinatorics and theoretical computer science. 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. Requisite: course M114S. Fundamental methods and results in mathematical logic, using mathematical methods to reason about existence or nonexistence of proofs and computations in many different settings. Topics include compactness of propositional and predicate logics, 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.


223C. Topics in Computability Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Degrees of unsolvability, recursively enumerable sets, undecidable theories, inductive definitions, admissible sets and ordinals; recursion in higher types; recursion and complexity. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

223D. Topics in Descriptive Set Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Classical and effective results on Borel and projective sets; introduction to games of perfect information and principle of determinacy; consequences of determinacy, including periodicity, structure theory of pointclasses, and partition properties. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

223M. Topics in Model Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Ultraproducts, preservation theorems, interpolation theorems, saturated models, the ultrapower construction, two cardinal theorems, 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. (4) 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. (4) 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 theorem, Euler characteristic, Ehresmann theorem, that proper submersions are locally trivial fibrations. S/U or letter grading.

225B. Differential Geometry. (4) Lecture, three hours; discussion, one hour. Lie derivatives, integrable distributions and Frolicher manifolds, differential forms, integration and Stokes theorem, de Rham cohomology, including Mayer-Vietoris sequence, Poincaré duality, Thom classes, degree theory and Euler characteristic, revisited as aspects of de Rham cohomology, Riemannian metrics, gradients, volume forms, and interpretation of classical integral theorems as areas 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 homology 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 manifolds, geodesics, submanifolds, constant curvature, Geodesics; conjugate points, variational methods, Myers theorem, nonposisitive curvature. Further topics such as pinched manifolds, integral geometry, Kahler manifolds, symmetric spaces.


233. Partial Differential Equations on Manifolds. (4) Lecture, three hours. Requisites: courses 226A, 251A. Topics may include Laplacian operator on a Riemannian manifold, eigenvalues, Atiyah/Singer index theorem, isoperimetric inequalities, elliptic estimates, harmonic functions, function theory on manifolds, Green’s function, heat equation, minimal hypersurfaces, prescribed curvature equations, harmonic maps, Yang/Mills equation, Monge/Ampere equations.

234. Topics in Differential Geometry. (4) Lecture, three hours. Requisites: courses 226A, 226B. Complex and Kahler geometry, Hodge theory, homogeneous manifolds and symmetric spaces, flatness and convergence theorems for Riemannian manifolds, almost flat manifolds, closed geodesics, manifolds of positive scalar curvature, manifolds of constant curvature. Topics vary from year to year. May be repeated for credit by petition.

235. Topics in Manifold Theory. (4) Lecture, three hours. Requisites: courses 225A, 225B. Emphasis on low-dimensional manifolds. Structure and classification of manifolds and embeddings 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. Decomposition spaces, surgery theory, group actions, dimension theory, infinite dimensional topology. Topics vary from year to year. May be repeated for credit by petition.

237. Topics in Algebraic Topology. (4) Lecture, three hours. Requisites: courses 227A, 227B. Fixed-point theory, fiber spaces and classifying spaces, characteristic classes, generalized homology and cohomology theories. 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 course. Topics include qualitative theory of differential equations, bifurcation theory, and Hamiltonian systems; differential dynamics, including hyperbolic theory and quasiperiodic dynamics; geometric theory; low-dimensional dynamics. S/U or letter grading.

Analysis and Differential Equations


247A-247B. Classical Fourier Analysis. (4–4) Lecture, three hours. Requisites: courses 245A, 245B, 246A. Distribution on \( \mathbb{R}^n \) and \( T^n \); Principal values; other examples. Distributions with submanifolds as supports. Kernel theorem. Convolution; examples of singular kernels and Riesz transform on \( T^n \). Distributions with compact or one-sided supports and their complex Fourier transforms.


250C. Advanced Topics in Ordinary Differential Equations. (4) Requisites: courses 250A, 250B. Selected topics, such as perturbation 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 introduction to topics of current interest in partial differential equations or their applications.


254A-254B. Topics in Real Analysis. (4–4) Requisites: courses 245A, 245B, 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.

Functional Analysis


Applied Mathematics


266A. Applied Ordinary Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisites: courses 245A, 118B, 132A, 132B, and 146. Spectral theory of regular boundary value problems and examples of singular Sturm/Liouville problems, related integral equations, phase/plane analysis of nonlinear systems, and examples of singular Sturm/Liouville problems, related integral equations, phase/plane analysis of nonlinear systems, 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 ordinary differential operators, eigenvalue problems for differential equations, generalized solutions, and applications to fluid dynamics. S/U or letter grading.


271A. Tensor Analysis. (4) Requisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds. Curvilinear coordinates and coordinate-free methods. Generalization of Green's theorem for differential forms. Applications to various fields such as continuum and particle mechanics.


273C. Optimization and Calculations of Variations: Numerical Optimization. (4) Lecture, three hours. Derivation and verification of numerical methods for constrained and unconstrained optimization problems of various types and with data at different scales. S/U or letter grading.


276. Topics in Network Science. (4) Lecture, three hours. Requisite: course 115A. Interesting topics vary from year to year and may include dynamical processes on networks, mesoscale structures in networks, time-dependent networks, multilayer networks, applications of networks, data analysis in networks, spatial networks, and others. Discussion of recent review articles and research papers. May be repeated for credit. S/U grading.

Special Studies


280B. Programming++ for Mathematics Graduate Students. (4) Lecture, three hours. Preparation: programming experience in at least one programming language. Limited to graduate students. S/U grading.

285A-285B. Seminar. (4 each) Seminar, three hours. May be repeated for credit.


290C. History and Development of Mathematics. (4) Seminar, three hours. May be repeated for credit. S/U grading.

290D. History and Development of Mathematics. (4) Seminar, three hours. May be repeated for credit. S/U grading.

290E. History and Development of Mathematics. (4) Seminar, three hours. May be repeated for credit. S/U grading.

290F. Mathematics and Popular Culture. (4) Seminar, three hours. May be repeated for credit. S/U grading.
Program in Computing

Lower-Division Courses

10A. Introduction to Programming. (5) Lecture, three hours; discussion, two hours. No prior programming experience assumed. Basic principles of programming, using C++; algorithmic, procedural problem solving; program design and development; basic data types, control structures and functions; functional arrays and pointers; introduction to classes for programmer-defined data types. P/NP or letter grading.

10B. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Abstract data types and their implementation using C++ class mechanism; dynamic data structures, including linked lists, stacks, 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. Requisite: course 10B. More advanced algorithms and data structuring techniques; additional emphasis on writing efficient programs; advanced features of C++; such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.

15. Introduction to Lisp and Symbolic Computation. (8) lecture, three hours; discussion, two hours; laboratory, four hours. Introduction to symbolic computation using Lisp programming language. Basics: list structures, recursion, function abstraction. Advanced topics: knowledge representation, higher-order functions, problem-solving algorithms and heuristics. P/NP or letter grading.

16A. Python with Applications I. (5) Formerly numbered 16.) Lecture, three hours; discussion, two hours. Requisite: course 10A or Computer Science 31, or equivalent, with grades of C- or better. In-depth introduction to Python programming language for students who have already taken beginning programming course in a longly 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. (5) Lecture, three hours; discussion, two hours. Requisite: course 16A or equivalent. In-depth application of Python program-
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++
- Familiarity with various principles of macro- and microeconomics (analysis, institutions, policy)

Entry to the Major
Admission
Current UCLA students need to apply for the Mathematics/Economics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics/Economics pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A) with a minimum 2.7 grade-point average and no more than two repeats, (2) achieve grades of C or better in all pre-major economics courses (Economics 1, 2, 11), (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Economics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.7 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Mathematics/Economics major must have a minimum 90 quarter units of completed college work, have completed the six sequenced courses with a 2.7 minimum overall grade-point average, and have completed three years of university-level mathematics courses. Students must achieve grades of C or better in all pre-major courses, or of any economics or 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 or of any mathematics or economics preparation course more than once results in automatic dismissal from the major.

Requirements
Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11, Program in Computing 10A, one Writing II course.

The Major
Required: Eight mathematics courses, including Mathematics 115A, 131A, 131B, 164, 170E, 170S, 174E (or Economics 141 or Statistics C183), and one elective course from Mathematics 134, 135, 136, or 171; six economics courses, including Economics 101, 102, 103, 103L, and two additional courses from 106E through 199B.

Honors Program
To qualify for honors at graduation, students must (1) complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics 198A and 198B (the thesis process requires enrollment in a two-term sequence for economics courses), (3) present the thesis in Economics 198B, and (4) complete the major requirements with a minimum 3.5 grade-point average in both the upper-division economics and mathematics courses.

Computing Specialization
Majors in Mathematics/Economics may select a Computing specialization by (1) satisfying all the requirements for a bachelor’s degree in the major, and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Mathematics Department Student Services Office). Students graduate with a bachelor’s degree in mathematics/economics and a specialization in Computing.

Policies
Preparation for the Major
Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A). The economics preparation courses must be completed with a minimum overall 2.7 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses. Students must receive a grade of C or better in the Writing II course.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or of any economics or mathematics preparation course more than once results in automatic dismissal from the major.

The Major
Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the eight Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the five courses from the Economics Department, with grades of C– or better in Economics 101 and 102.

Honors Program
Students who wish to graduate with departmental honors should apply for admission to the honors program in the Mathematics Department Student Services Office. They may apply any time after completing the preparation for the major courses and meeting the following requirements: (1) be officially enrolled in the Mathematics/Economics major, (2) complete all the preparation for the major courses, (3) achieve a minimum 3.5 grade-point average in the mathematics preparation for the major courses, (4) achieve a minimum 3.5 grade-point average in the economics preparation for the major courses, and (5) achieve a minimum 3.5
grade-point average and quality of the senior thesis.

Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

MECHANICAL AND AEROSPACE ENGINEERING
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Message Center
Timothy S. Fisher, PhD, Chair
Pei-Yu Chiou, PhD, Vice Chair
Jeffrey D. Eldredge, PhD, Vice Chair
Chang-Jin Kim, PhD, Vice Chair

Faculty Roster

Professors
Mohamed A. Abdou, PhD
Andrea L. Bertozzi, PhD (Betsy Wood Knapp Professor of Innovation and Creativity)
Robert N. Candler, PhD
Gregory P. Carman, PhD (Ben Rich–Lockheed Martin Professor of Advanced Aerospace Technologies)
Yong Chen, PhD
Eric Pei-Yu Chiou, PhD
Vijay K. Dhir, PhD
Dino Di Carlo, PhD
Jeffrey D. Eldredge, PhD
Timothy S. Fisher, PhD (John P. and Claudia H. Schauerman Endowed Professor of Engineering)
Rajit Gadh, PhD
Vijay Gupta, PhD
Dennis W. Hong, PhD
Jonathan B. Hopkins, PhD
Tetsuya Iwasaki, PhD
Y. Sungtaek Ju, PhD
Ann R. Karagözian, PhD
H. Pirouz Kavehpour, PhD
Chang-Jin (CJ) Kim, PhD (Volgenau Endowed Professor of Engineering)
Adrienne G. Lavine, PhD
Xiaoqun Li, PhD (Raytheon Company Professor of Mechanical Engineering)
Jaime Marian, PhD
Robert T. M’Closkey, PhD
Ali Mosleh, PhD, NAE (Evalyn Knight Professor of Engineering)
Sriram Narasimhan, PhD
Laurent G. Pine, PhD
Jacob Rosen, PhD

Veronica J. Santos, PhD
Jason L. Speyer, PhD (Ronald and Valerie Sugar Endowed Professor of Engineering)
Kunihiko (Sam) Taira, PhD
Tsu-Chin Tsao, PhD
Richard E. Wirtz, PhD
XiaoLin Zhong, PhD

Professors Emeriti
Oddvar O. Bendiksøen, PhD
Peretz P. Friedmann, ScD
Nasr M. Ghorbani, PhD
James S. Gibson, PhD
H. Thomas Hahn, PhD (Raytheon Company Professor Emeritus of Manufacturing Engineering)
Chih-Ming Ho, PhD (Ben Rich–Lockheed Martin Professor Emeritus of Aeronautics)
J. John Kim, PhD (Rockwell Collins Professor Emeritus of Engineering)
Ajit K. Mal, PhD
Anthony F. Mills, PhD
D. Lewis Mingori, PhD
Peter A. Monkenwitz, PhD
Philip F. O’Brien, MS
Lucien A. Schmit, Jr., MS
Owen I. Smith, PhD
Richard E. Stern, PhD
Russell A. Westmann, PhD
Daniel C.H. Yang, PhD

Associate Professors
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Yongjie Hu, PhD
Jean-Pierre Hubschman, MD, in Residence
Raymond M. Spearin, PhD
Xiaoyu (Rayne) Zheng, PhD

Assistant Professors
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Artur R. Davoyan, PhD
M. Khalid Jawed, PhD
Lihua Jin, PhD
Neil Y.C. Lin, PhD
Brett T. Lopez, PhD
Ankur Mehta, PhD

Lecturers
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Amiya K. Chatterjee, PhD
Robert J. Kinsey, PhD
Damian M. Toohey, PhD

Adjunct Professors
Portonovo S. Ayyaswamy, PhD
S. Amir Faghri, PhD
Dan M. Goebel, PhD
Vinay K. Goyal, PhD
Leslie M. Lackman, PhD
Christopher S. Lynch, PhD
Wilbur J. Marner, PhD
Audrey P. O’Neal, PhD
Neil G. Siegel, PhD

Adjunct Associate Professor
Abdon E. Sepulveda, PhD

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
Mechanical and Aerospace Engineering BS

The mechanical engineering program is designed to provide basic knowledge in thermodynamics, fluid mechanics, heat transfer, solid mechanics, mechanical design, dynamics, control, mechanical systems, manufacturing, and materials. The program includes fundamental subjects important to all mechanical engineers.

The mechanical engineering program is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major

The Mechanical Engineering major is a designated capstone major. Within their capstone courses, Mechanical Engineering students work in teams to propose, design, analyze, and build a mechanical or electromechanical device. Graduates should be able to apply their knowledge of mathematics, science, and engineering in technical systems; design a system, component, or process to meet desired needs; function as productive members of a team; identify, formulate, and solve engineering problems; and communicate effectively, both orally and in writing.

Learning Outcomes

The Mechanical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Function as a productive member of a team that considers multiple aspects of an engineering problem
- Design of a system, component, or process to meet desired needs
- Effective oral and written communication
- Identification, formulation, and solution of engineering problems

Requirements

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A; Mechanical and Aerospace Engineering M20 (or Computer Science 31), 82; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required: Mechanical and Aerospace Engineering 1, 101, 102, 103, 105A, 105D, 107, 150A, 157, 166A, 171A; two departmental breadth courses (Electrical and Computer Engineering 100 and Materials Science and Engineering 104)—if one or both of these courses are taken as part of the technical breadth requirement, students must select a replacement upper-division course or courses from the department—except for Mechanical and Aerospace Engineering 156A—or, by petition, from outside the department; one of the following two tracks (16 units): aeronautics (150B, C150P, 154A, 154S) or space (C150R, 161A, 161B, 161C); three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Mechanical and Aerospace Engineering 157A); one major field elective course (4 units) from the track not chosen (150B or C150P, C150R or 161A) and one major field elective course (4 units) from Mechanical and Aerospace Engineering 150B, C150R, 154S, 161A, 161B, 161C (unless taken as a required course), or from 94, 131A, C131G, 133A, 135, C136, C137, C138, CM140, 150C, C150G, 154B, 155, C156B, 162A, C162B, C163A, C163B, C163C, 166C, M168, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A, M183B, C183C, 185, C186, C187L.

For information on UC, school, and general education requirements, see the SamueI school section in College and Schools.

Graduate Majors

Aerospace Engineering MS, PhD

Requirements

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

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

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, automotive, entertainment, energy, and manufacturing industries. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Upper-Division Courses


2. Dynamics of Particles and Rigid Bodies. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 31B, Physics 1B. Introduction to dynamics, particles and rigid bodies in three dimensions. Impulse-momentum and work-energy relationships. Applications. Letter grading.


4. Introduction to 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 conversation systems. Rankine cycle and other cycles, refrigeration, psychrometry, reactive and non-reactive fluid flow systems. Elements of thermodynamic design. Letter grading.

5. Fundamentals of Nuclear Science and Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 82, Chemistry 20A. Review of nuclear physics, radiactivity and decay, and radiation interaction with matter. Nuclear fission and fusion processes and mass and energy, chain reactions, criticality, neutron diffusion and multiplication, heat transfer issues, and applications. Introduction to nuclear power plants for commercial electricity production, space power, spacecraft propulsion, nuclear fusion, and nuclear science for medical uses. Letter grading.

6. Energy and Environment. (4) Formerly numbered 136B.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 82, Chemistry 20A. 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 C236B. Letter grading.

7. Design and Analysis of Smart Grids. (4) Lecture, four hours; outside study, eight hours. Demand response; transactive/price-based load control; home area network, smart energy profile; advanced metering infrastructure; renewable energy integration; solar and wind generation; active power management; microgrids; grid stability; energy storage and electric vehicles-simulation; monitoring, distribution and transmission grids; consumer-centric technologies; sensors, communications, and computing; wireless, wireline, and powerline communications for smart grids; grid modeling, stability, and control; frequency and voltage control; voltage source conversion; power system measurement; analytical methods and tools for monitoring and control. Concurrently scheduled with course C236B. Letter grading.

8. Introduction to Statistical Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 105A, 105D. Introduction to basic concepts and tools of statistical thermodynamics. Abstraction concepts of entropy, temperature, and chemical potential are explained by developing these concepts from ground up using only mechanical and statistical principles. Discussion of equilibrium properties of thermodynamic systems and associated distributions. Provides sound foundation for further studies in transport phenomena, plasma, chemical kinetics, micro/nanoscale science and technology, and other related subjects. Concurrently scheduled with course C238B. Letter grading.

9. Intermediate Heat Transfer. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 102, and 156A or 166A. Introduction to methods of solving energy-related problems. Use linear and non-linear approximations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer, and power generation. Lab-oriented, two hours; outside study, six hours. Requisites: concurrently scheduled with course C230. Letter grading.


12. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 103, 105A. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory system; rheology of blood; transport in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C250G. Letter grading.


14. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 103, 105A. Rocket propulsion concepts, including chemical rockets (liquid, gas, and solid propellants), hybrid rocket engines, electric ion, plasma rockets, nuclear rockets, and solar-powered vehicles. Current issues in launch vehicle technologies. Concurrently scheduled with course C250P. Letter grading.

15. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 154S. Classical preliminary design of aircraft, including weight estimation, performance and stability, and control considerations. Term assignment consists of preliminary design of low-speed aircraft. Letter grading.

154S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, one hour; 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 de-

155. Intermediate Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requ-

156A. Advanced Strength of Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 101. Not open to stu-

156B. Mechanical Design for Power Transmis-

157. Basic Mechanical and Aerospace Engineering Laboratory. (4) Laboratory, eight hours; outside study, four hours. Requisites: courses 101, 102, 103, 105A. Electrical Engineering 100. Methods of measurement of basic quantities and performance of basic 

157A. Aerospace Design Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisites: course 157. Recommended 150S and 150FR. Experimental illustration of important physical phenomena in area of fluid mechanics/aerodynamics, as well as hands-on experience with design of experi-

161A. Introduction to Astronautics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 102. Recommended: course 82. Spaceflight, including two-body and three-

161B. Introduction to Space Technology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended preparation: courses 102, 101A. Spacecraft systems and dynamics, including spacecraft design, instruments, communications, structures, materials, thermal control, and attitude/ 

161C. Spacecraft Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 161B. Preliminary design and analysis by students of Earth-orbiting or interplanetary space missions and spacecraft systems. Emphasis placed on working in groups of three or four, with each student responsible primarily for one sub-

162A. Introduction to Mechanisms and Mechanical Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Computer Science 31), 102. Analysis and synthesis of mechanisms and mechanical sys-

162B. Compliant Mechanism Design. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: linear algebra. Advanced compliant mechanism synthesis approaches, modeling techniques, and optimization tools. 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: course 156A or 166A. Material selec-

162E. Mechanical Engineering Design II. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 162D. Limited to seniors. Students conduct design projects in creating cap-

163A. Kinematics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses 155, 171A. Kinematics of multijoint manipulators, in-

163B. Dynamics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 161B. Dynamics of models of serial and parallel robotic manipulators, in-

163C. Control of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 163B. Sensors, ac-

164A. Analysis of Aerospace Structures. (4) Lec-

166C. Design of Composite Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 156A or 166A. How to design for com-

166D. Introduction to Finite Element Methods. (4) (Same as Civil Engineering M139C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 156A or 166A or Civil Engi-

171A. Introduction to Feedback and Control Sys-

171B. Digital Control of Physical Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 171D. Introduction to feed-

172. Control System Design Laboratory. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 171A. Introduction to loop shaping controller design with application to laborator-

174. Probability and Its Applications to Risk, Reli-

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C175A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 107. Probability models, random variables, stochastic processes, conditional expectation, Gauss/Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C271A. Letter grading.


C183B. 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 20A, 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 techniques and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for fabricating microstructures and nanostuctures in modern clean-room 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 and additive fabrication, or additive manufacturing has emerged as popular manufacturing technology to accelerate product creation in last two decades. Machines for layered manufacturing build 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 variety in materials. In analogy 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.

C183D. 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 today requires assembling of individual components into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification technology makes use of electromagnetic waves for tracking and managing of items. RFID tag have memory and small CPU that allows 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 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 physical, chemical, and biological principles of nanoscale processes. Top-down and bottom-up (self-assembly) nanofabrication. Characterization and analysis of nanoscale systems. Students encouraged to design their own experiments and self-designed experiments. Concurrently scheduled with course C287L. Letter grading.

C188. Special Courses in Mechanical and Aerospace Engineering. (2 to 4) Lecture, two to four hours, outside study, four to eight hours. Special topics in mechanics and aerospace engineering for undergraduates. One or two topics taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. P/NP or letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2 to 4) Lecture, two to four hours, outside study, four to eight hours. 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 or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with credit approval. Approval required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Required course 105D. Radiative properties of materials and radiative energy transfer. Emphasis on fundamental concepts, including energy levels and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions 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. Required: course 105D. Exploration of basic principles of transportation of energy in natural and fabricated structures by way of stringent micromechanics, micro- and nanoscale numerical methods, and microfabrication and nanofabrication techniques. Letter grading.

233. Nanoscience for Energy Technologies. (4) Lecture, four hours; outside study, eight hours. Introduction to fundamental principles of energy transport, conversion, and storage at nanoscale, and recent developments for these energy technologies involving nanotechnology. Focus on basics of thermoelectric, solid state, quantum mechanics, electromagnetics, and statistical physics. Focus discussions given for examples that connect theoretical principles to 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. Required courses: courses 182B, 250A, 250B. Phase change heat transfer, boiling, and condensation. Generalized constitutive equations for two-phase flow, Phenomenological theories of boiling and condensation, including forced and natural convection effects. Letter grading.


C231G. Microscopic Energy Transport. (4) (Formerly numbered 231G.) Lecture, four hours; outside study, eight hours. Required: course 105D. Exploration of basic principles of transportation of energy in natural and fabricated structures by way of stringent micromechanics, micro- and nanoscale numerical methods, and microfabrication and nanofabrication techniques. Letter grading.

233. Nanoscience for Energy Technologies. (4) Lecture, four hours; outside study, eight hours. Introduction to fundamental principles of energy transport, conversion, and storage at nanoscale, and recent developments for these energy technologies involving nanotechnology. Focus on basics of thermoelectric, solid state, quantum mechanics, electromagnetics, and statistical physics. Focus discussions given for examples that connect theoretical principles to 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. Required courses: courses 182B, 250A, 250B. Phase change heat transfer, boiling, and condensation. Generalized constitutive equations for two-phase flow, Phenomenological theories of boiling and condensation, including forced and natural convection effects. 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-area network; smart energy profiles; advanced metering infrastructure; renewable energy integration; solar and wind generation intermittency and correction using smart inverters; grid storage and electric vehicles—monitoring; distribution and transmission grids; consumer-centric technologies; sensors, communications, and computing; wire-line, wireless, and power networks for smart grids; grid modeling, stability, and control; frequency and voltage regulation; ancillary services; wide-area situational awareness, phasor measure-
M237B. Fusion Plasma Physics and Analysis. (4)
(Same as Electrical and Computer Engineering M287.) Lecture, four hours; outside study, eight hours. Fundamentals of plasma and nuclear burning conditions. Fokker/Planck equation and applications to heating by neutral beams, RF, and fusion reaction products. Bremsstrahlung, synchrotron, and atomic radiations. Plasma surface interactions. Fluid description of burning plasma. Dynamics, stability, and control. Applications in tokamaks, tandem mirrors, and magnetic mirror devices.

237E. Fusion Engineering and Design. (4) Lecture, four hours; outside study, eight hours. Fusion reaction concepts and technological components. Analysis and design of high heat flux components, energy conversion and tritium breeding components, radiation shielding, magnets, and heating. Letter grading.

238. Introduction to Statistical Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 105A, 105D. Introduction to basic concepts and tools of statistical thermodynamics. Abstract concepts of entropy, temperature, and chemical potential are explained by developing these concepts from ground up using only mechanical and statistical principles. Discussion of equilibrium properties of thermodynamic systems and first and second law of thermodynamics at associated distributions. Provides sound foundation for further studies in transport phenomena, plasma, chemical kinetics, micro/nanoscale science and technology, and other related subjects. Concurrently scheduled with course C138. Letter grading.

239B. Seminar: Current Topics in Transport Phenomena. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Current and recent studies, areas of current interest in nuclear engineering, such as reactor safety, risk-benefit trade-offs, nuclear materials, and reactor design. May be repeated for credit with topic change. S/U grading.

239H. Special Topics in Fusion Physics, Engineering, and Technology. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current studies, areas of current interest in nuclear engineering, such as reactor safety, risk-benefit trade-offs, nuclear materials, and reactor design. May be repeated for credit with topic change. S/U grading.

CM240. Introduction to Biomechanics. (4) (Same as Bioengineering CM240.) Lecture, four hours; discussion, two to four hours; laboratory, six hours. Requisites: courses 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.

242. Introduction to Multiferroic Materials. (4) Lecture, four hours; outside study, eight hours. Overview of different types of multiferroic materials, including strain mediated, basic crystal structure of single-phase multiferroics, as well as fundamental physics underlying ferroelectric and ferromagnetic. Material science description of these materials, with focus on linear and nonlinear behavior with associated mechanisms such as spin reorientation. Presentation of analytical tools and numerical response ranging from constitutive relations to governing equations, including elastodynamics and Maxwell's. Analytical and physical descriptions used to explain general dynamics with multiferroics, including magnetostrictors, energy devices, motors, and antennas. Letter grading.

250A. Foundations of Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 150A. Corequisite: course 182B. Development and application of fundamental principles of fluid mechanics at graduate level, with emphasis on incompressible flow. Flow kinematics, basic equations, constitutive relations, exact solutions on the Navier-Stokes equations, vorticity dynamics, decomposition of flow fields, potential flow. Letter grading.

250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Requisites: course 150A. Fundamental principles of fluid dynamics applied to study of fluid resistance. States of fluid motion discussed in order of advancing Reynolds number; wakes, boundary layers, instability, transition, and turbulent shear flows. Letter grading.

250C. Compressible Flows. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Effects of compressibility in viscous and in inviscid flows. Steady and unsteady inviscid sonic and supersonic flows; method of characteristics; small disturbance theories (linearized and hypersonic); shock dynamics. Letter grading.


250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: course 150A. Corequisite: course 502B. Introduction to basic concepts and techniques of various spectral methods applied to solving partial differential equations. Particular emphasis on techniques of solving incompressible Navier-Stokes equations. Topics include spectral representation of functions, discrete Fourier transform, etc. Letter grading.

250F. Hypersonic and High-Temperature Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Recommended requisites: course 250C. Molecular and chemical description of equilibrium and non-equilibrium hypersonic and high-temperature gas flows, chemical thermodynamics and statistical thermodynamics for calculation gas properties, equilibrium flows of real gases, vibrational and chemical rate processes, nonequilibrium flows of real gases, and comparison of equilibrium and nonequilibrium hypersonic flows. Letter grading.

250G. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: course 103. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory system; rheology of blood; transport in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C150G. Letter grading.


250P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 150A. Thermodynamic properties of gases, aircraft jet engine cycle analysis, propulsion concepts and component-matching, advanced aircraft engine topics. Concurrently scheduled with course C150P. Letter grading.

250R. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 103, 150A. Rocket propulsion concepts, including chemical rockets (liquid, gas, and solid propellants), hybrid rocket engines, electric (ion, plasma) rockets, nuclear rockets, and solar-powered vehicles. Current issues in launch vehicle technologies. Concurrently scheduled with course C150R. Letter grading.

250S. Spectroscopy and Molecular Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Introduction to spectroscopy, physical gas dynamics to establish microscopic or macroscopic perspective on gas properties and physical behavior. Material is structured within three subtopics of gas-phase spectroscopy: spectral line positions, spectral line intensities, and spectral line shapes. These capture spectroscopic interactions of atoms, diatomic molecules, and polyatomic molecules, and their respective rotational (Thz), vibrational (IR), and electronic (UV/Vis) spectra. Presentation of absorption and scattering processes, associated optical measurement techniques. Integration of subject matter from physical sciences (quantum mechanics, statistical thermodynamics, and molecular chemistry) covered at level appropriate for engineer. Letter grading.

252A. Stability of Fluid Motion. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Mechanisms by which laminar flows can become unstable to disturbances, leading to turbulent motions. Linear stability theory; thermal, centrifugal, and shear instabilities; boundary layer instability. Nonlinear aspects: sufficient criteria for stability, subcritical instabil- ities, Deborah/Cake states, transition to turbulence. Letter grading.

252B. Turbulence. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B. Characteristics of turbulent flows, boundary layer flow, simple turbulent flows, free-shear flows, wall-bounded flows, turbulence modeling, numerical simulations of turbulent flows, and turbulence control. Letter grading.


252E. Data Science for Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Data-driven analysis, modeling, and control of fluid flows using modern linear algebra, multivariate analysis, reduced-order modeling, clustering, network science, and machine learning. Emphasis on extracting physical characteristics and insights from fluid flow data. Letter grading.

252F. Planar and Ionized Gases. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 82, 102, 150A, 182B. Neutral and charged particle motion, magnetohydrodynamics, two-fluid plasma treatments, ion and electron diffusion, gas diffusion, Child/Langmuir law, basic plasma devices, electron
emission and work function, thermal distributions, vacuum and vacuum systems, space-charge, particle collisions and ionization, plasma discharges, sheaths, and electric arcs. Letter grading.

255A. Advanced Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 169A. Vibration and Lagrangian equations. Kinematics and dynamics of rigid bodies; procession and nutation of spinning bodies. Letter grading.

255B. Mathematical Methods in Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255A. Concepts of stability; state-space interpretation; stability determination by simulation, linearization, and Lyapunov direct method; the Hamiltonian as a Lagrangian function; nonautonomous systems; averaging and perturbation methods of nonlinear analysis; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

M256A. Linear Elasticity. (4) (Same as Civil Engineering M230B.) 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; principle of virtual work; plane elastostatic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerutti. Introduction to boundary integral equation methods. Letter grading.

M256B. 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 finite deformation, material and spatial coordinates, deformation gradient tensor. Letter grading.

261A. Energy and Computational Methods in Structural Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Review of theory of linear elasticity and reduced structural theories (plates and shells). Cartesian tensors; infinitesimal strain; linear and finite elasticity; strain energy; displacement potentials; finite element method. Letter grading.

261B. Finite Element Analysis for Solids and Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or M256A, or consent of instructor. Strongly recommended requisites: courses M168, M256B, 261A. Application of finite element methods to the solution of state-of-art modeling and design problems for solids and structures. Introduction of commercial mainstream finite element program—ABAQUS—and demonstration of how to use it in advanced way. Topics include review of finite element method, static and dynamic linear elasticity, finite deformation of hyperelastic materials, instability analysis, fracture, and implementation of user-defined subroutines in ABAQUS. Term projects using computers. Letter grading.


269F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Review of modern fracture mechanics, elementary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; elastic-plastic deformations in stiffened structures, pressure vessels, plates, and shells. Letter grading.

M257A. Elastodynamics. (4) (Same as Earth, Planetary, and Space Sciences M224A.) Lecture, four hours; outside study, eight hours. Requisites: courses M256A, M256B. Equations of linear elasticity, Cauchy equation of motion, constitutive relations, boundary and initial conditions, principle of energy. Sources and waves in unbounded isotropic, anisotropic, and dissipative solids. Half-space problems. Guided waves in layered media. Applications to dynamic fracture, 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 atomic through microstructure or transitional and up to continuum. Discussion of atomistic simulation methods (e.g., molecular dynamics, Linear and Molecular Monte Carlo) and their applications at nanoscale. Developments and applications of dislocation dynamics and statistical mechanics methods in areas of nanostructure and microstructure organization, heterogeneous plastic deformation, material instabilities, and failure phenomena. Presentation of technical applications of these emerging modeling techniques to surfaces and interfaces, grain boundaries, dislocations and defects, surface growth, quantum dots, nanotubes, nanocrystals, thin films (e.g., optical thermal barrier coatings and ultrastrong nanolayer materials), nano-identification, smart (active) materials, nanobonding and micro-bonding, and torsion. Letter grading.

259A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Requisite: course C259B. Advanced Lagrangian 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. Students to be on their own. Topics include dynamics, elasticity, plasticity, and stability of solids. Letter grading.

260. Current Topics in Mechanical Engineering. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, and student presentations and projects in areas of current interest in mechanical engineering. May be repeated for credit. S/U grading.

C260C. Letter grading.

261A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 259B. Current and advanced topics in robotics and control, including kinematics, spatial coordinate system, sensors and actuators, flexible links, manipulability, redundant manipulators, human–robot interaction, teleoperation, haptics. Letter grading.

262E. Bionic Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 259B. Presentation of field of aeroelasticity and advanced structural theories. Stability and control, mechanical design, advanced sensors and actuators, flexible links, manipulability, redundant manipulators, human–robot interaction, teleoperation, haptics. Letter grading.

263E. Bionic Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M20, 82, or equivalent. Introduction to design principles for bionic systems, including wearable robotics and implantable devices. Neuro control of movement, electromechanical modeling, actuator design, sensor integration, robotic control, neural interfacing, surgical techniques for amputation, and fundamentals of orthopaedic implants. Letter grading.


M270A. Linear Dynamic Systems. (4) (Same as Chemical Engineering M280A and Electrical and Computer Engineering M240A.) Lecture, four hours; outside study, eight hours. Requisite: course 171A. Control and Computer Engineering 141. State-space description of linear time-invariant (LTI) and time-variants (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 concepts such as state feedback and LQR stabilization 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, linear and nonlinear systems, finite and infinite problems; Hamiltonian systems and optimal control; algebraic and differential Riccati equations; implications of controllability, stabilizability, observability, and detectability. Letter grading.

M270C. Optimal Control. (4) (Same as Chemical Engineering M280C and Electrical and Computer Engineering M240C.) Lecture, four hours; outside study, eight hours. Requisite: course 270B. Applications of variational methods, Pontryagin maximum principle, formulation, Lagrangian formulation, trajectory generation, introduction to parallel manipulators. Concurrently scheduled with course C163B. Letter grading.

C263C. Control of Robotic Systems. (4) (Formerly numbered 263C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: courses M269A, M270A. Control and analysis of computer aided control schemes for robotic systems, including computed torque control, linear feedback control, impedance and force feedback control, and advanced control of nonlinear and hybrid control, nonholonomic systems, vision-based control, and perception. Concurrently scheduled with course C163C. Letter grading.

C270B. Optimal Control. (4) (Formerly numbered 263B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 263B. Control and analysis of computer controlled systems, including computed torque control, linear feedback control, impedance and force feedback control, and advanced control of nonlinear and hybrid control, nonholonomic systems, vision-based control, and perception.

C271B. Stochastic Estimation. (4) Lecture, four hours; outside study, eight hours. Required courses: course C271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, conditional mean and risk estimators. Letter grading.

C271C. Stochastic Optimal Control. (4) Lecture, four hours; outside study, eight hours. Required courses: courses 82, 107. Hamilton/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamical systems modeled by nonlinear ordinary differential equations. Letter grading.

C271D. Special Topics in Dynamical Systems Control. (4) Seminar, four hours; outside study, eight hours. Seminar on current research topics in dynamical systems analysis, modeling, and control. Topics selected from process control, differential games, nonlinear estimation, adaptive filtering, industrial and aerospace applications, etc. Letter grading.

M272A. Nonlinear Dynamics. (4) (Same as Chemical Engineering M282A and Electrical and Computer Engineering M242A.) Lecture, four hours; outside study, eight hours. Required: course M270A or Chemical Engineering M282A or Electrical and Computer Engineering M240A. State-space techniques for studying solutions of time-invariant and time-varying nonlinear dynamical systems with emphasis on stability, Lyapunov's direct method, converse theorems, variance, center manifold theory, input-to-state stability, and small-gain theorem. Letter grading.


M276. Dynamic Programming. (4) (Same as Electrical and Computer Engineering M237.) Lecture, four hours; outside study, eight hours. Recommended requisites: course M270A or 236A or 236B, Introduction to mathematical analysis of sequential decision processes. Finite horizon model in both deterministic and stochastic cases. Finite-state irreducible Markov models. Methods of solution, samples from inventory theory, finance, optimal control and estimation, Markov decision processes, combinatorial optimization, communications. Letter grading.

M277. Advanced Digital Control for Mechatronic Systems. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Required: courses 171B, M270A. Digital signal processing and control analysis of mechatronic systems. System inversion-based design and control; Fourier transforms and robust control; Z-parameters, Youla parameterization of stabilizing controllers, previewed optimal feedforward compensator, repetitive and learning control, and adaptive control. Real-time control investigation of tools to selected mechatronic systems. Letter grading.

279. Dynamics and Control of Biological Oscillations. (4) Lecture, four hours; outside study, eight hours. Required: courses 107, M270A. Analysis and design of dynamical mechanisms underlying biotechnical systems that generate coordinated oscillations. Topics include neuronal information processing through action potentials (spike train), central pattern generation mechanisms, and generalized oscillators. Optimal gaits and periodic motion for animal locomotion, and entrainment to natural oscillations via feedback control. Letter grading.


M280B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M250B and Electrical and Computer Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enrolled requisite: course M183B. 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 resistivity, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

281. Microsciences. (4) Lecture, four hours; outside study, eight hours. Required: courses 102, 103, 109. Fundamental issues of being in micro/ nanopicoscopic world and mechanical engineering of microscale devices. Topics include scale issues, surface tension, superhydrophobic surfaces and applications, and electro wetting and applications. Letter grading.

M282. 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, eight 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 nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.


285. Interfacial Phenomena. (4) Lecture, four hours; outside study, eight hours. Required: 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 hydrodynamics, and dynamics of triple line. Presentation of various applications, including wetting, change of phase (boiling and condensation), forms and emulsions, microfluidics, and droplet drying. Letter grading.


M287. Nanoscience and Technology. (4) (Same as Electrical and Computer Engineering M257.) Lecture, four hours; outside study, eight hours. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanomechanist nanomaterials, nanoscale devices, and nanobiodection technology. Introduction to new knowledge and techniques in nano areas to understand basic physical principles of nano-technology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.

C287L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, eight hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and biodetection. Basic physical, chemical, and biological principles related to materials, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and electrochemical biosensors. Students encourage to date their own experimental projects. Concurrently scheduled with course C187L. Letter grading.


C295A. Radio Frequency Identification Systems: Analysis, Design, and Applications. (4) Lecture, four hours; outside study, eight hours. Design for graduate engineering students. Examination of emerging discipline of radio frequency identification (RFID), including basics of RFID, how RFID systems function, design and analysis of RFID systems, and applications to fields such as supply chain, manufacturing, retail, and homeland security. Letter grading.


C298B. High-Temperature Mechanical Design. (4) Lecture, four hours; outside study, eight hours. Required: course 156A or equivalent. Review of elasticity and continuum thermodynamics, multiaxial plasticity, flow rules, cyclic plasticity, viscoplasticity, creep, constitutive laws in cyclic loading of materials. Thermodynamics, ductile, creep, fatigue, and fatigue-creep interaction damage. Fracture mechanics: elastic and elastoplastic 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, two; outside study, six hours. Recommended requisite: level of 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 layer-by-layer building 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 C183B.

M297B. Material Processing in Manufacturing, (4) (Same as Materials Science M297B.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 183A. Thermodynamics, principles of material processing (phase equilibria and transitions, transformation and deformation 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 186C, Materials Science 151. Matrix materials, fibers, fiber pre-forms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, automation, material removal and assembly, and ceramic/metal matrix composites. Quality assurance, Letter grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate mechanical and aero-space 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.

299A. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M299A and Electrical Engineering Computer Engineering M248S.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit.

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.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. 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 and for 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 and for 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.

M Aviation

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160A.) Lecture, four hours; possible field observations. First 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, 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, two hours; fieldwork, six to eight hours; Requisites: consent of instructor. Exposure to health service environments, 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 cultivation; herbs, diet, and nutritional supplements; pain management using acupuncture, acupressure, massage, and other self-help techniques; integrative medicine research and evidence-based modalities; chronic stress and implications on sleep, inflamma-
tion, 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 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.


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 facilitate USIE RRS course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Medicine. (2 to 8) Tutorial, two hours. Limited to 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


M263. Clinical Pharmacology. (2) Same as Bio-mathematics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNP, or Ph.D.). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

M270C. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) Same as Bioengineering M270C and Computer Science M296C. Lecture, four hours; outside study, eight hours. Requisite: Biomedical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartmental, and 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 M270D and Computer Science M296D.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Computer Science M296C or Biology 170A or Mechanical and Aerospace Engineering 171A or Bioengineering 226C or Mathematics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model and optimal experiment design via applications in physiology and pharmacology. Letter grading.


Microbiology, Immunology, and Molecular Genetics

College of Letters and Science and David Geffen School of Medicine

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Microbiology, Immunology, and Molecular Genetics

310-825-8482
Jerome H. Zack, PhD, Chair
Douglas L. Black, PhD, Vice Chair, Academic Personnel
Elissa A. Hallem, PhD, Vice Chair, Graduate Affairs

Faculty Roster

Professors
Frank U. Alber, PhD
Steven J. Bensinger, VMD, PhD
Douglas L. Black, PhD
Peter J. Bradley, PhD
Manish J. Butte, MD, PhD
David A. Campbell, PhD
Irvin S.Y. Chen, PhD
Gien Hong Cheng, PhD
James S. Economou, MD, PhD
Elissa A. Hallem, PhD
Kent L. Hill, PhD
Alexander Hoffmann, PhD (Thomas M. Asher Endowed Professor of Microbiology)
Marcus A. Horwitz, MD
Patricia J. Johnson, PhD
Donald B. Kohn, MD
Aldons J. Lusis, PhD
Onorio M. Martinez-Maza, PhD
Megan M. McEvoy, PhD
M. Carrie Miceli, PhD
Jeffery F. Miller, PhD (Fred Kavli Professor of Nanosystems Sciences)
Robert L. Modlin, MD
Manuel L. Penichet, MD, PhD
April D. Pyle, PhD
Stephen T. Smale, PhD
Maureen A. Su, MD
Owen N. Witte, MD (President Professor of Developmental Immunology)
Otto O. Yang, MD
Jerome H. Zack, PhD
Z. Hong Zhou, PhD

Professors Emeriti
Arnold J. Berk, MD (President Professor Emeritus of Molecular Cell Biology)
Benjamin E. Bonavida, PhD
Asim Dasgupta, PhD
Frederick A. Eisinger, PhD
Lawrence T. Feldman, PhD
C. Fred Fox, PhD
Robert P. Ginnas, PhD
Rafael J. Martinez, PhD
James N. Miller, PhD
Jeffrey H. Miller, PhD
Sherie L. Morrison, PhD
Debi P. Nayak, BVSc, PhD
Larry Simpson, PhD
Ronald H. Stevens, PhD
Fuyuhiko Tamanoh, MD
Christel H. Uittenbogaart, MD
Randolf Wall, PhD
Felix O. Wettstein, PhD
Kent L. Hill, PhD
Elissa A. Hallem, PhD

Associate Professors
Elaine Y. Hsiao, PhD (De Logi Professor of Biological Sciences)
Beth A. Lazazzera, PhD
Lili Yang, PhD

Assistant Professors
Anthony J. Covarrubias, PhD
Entry to the Major
Transfer Students
Transfer applicants to the Microbiology, Immunology, and Molecular Genetics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 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.

Requirements
Preparation for the Major
Life Sciences Core Curriculum
Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 13, or 31A, 31B, 32A, and Statistics 13; Physics 1A, 1B, 1C, 4A, and 4BL, or 5A, 5B, and 5C.

The Major
Two plans are offered by the department.

Plan I—Research Immersion Laboratory
Required: Ten courses as follows: (1) Five foundation courses: Chemistry and Biochemistry 153A, 153B or Microbiology, Immunology, and Molecular Genetics 132, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL, (3) two focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular, Cell, and Developmental Biology 138, 165A, and (4) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 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 103AL, 103BL, 109AL, 109BL, C122, 174, C185B, 191H, 198C, 199, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Psychological Science 121, 124, 125, 128, Statistics 100A, 100B.

Plan II—Advanced Independent Research
Required: Twelve courses as follows: (1) five foundation courses: Chemistry and Biochemistry 153A, 153B or Microbiology, Immunology, and Molecular Genetics 132, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) Microbiology, Immunology, and Molecular Genetics 196A, 196B, or Molecular, Cell, and Developmental Biology 196A, 196B, (3) Microbiology, Immunology, and Molecular Genetics 180A, 180B or Molecular, Cell, and Developmental Biology 180A, 180B, (4) two focus elective courses selected from Bioengineering 135L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular, Cell, and Developmental Biology 138, 165A, and (5) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 156, CM160A, 171, C172, C181, Computer Science CM121, CM122, CM124, Ecology and Evolutionary Biology 121, C135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, C122, 174, C185B, 191H, 198C, 199, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Psychological Science 121, 124, 125, 128, Statistics 100A, 100B.

Honors Program
The core of the program consists of Microbiology, Immunology, and Molecular Genetics 196A, 198B, and 198C research, culminating in a thesis.

Policies
Preparation for the Major
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade 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.

The Major
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.

Plan I
No more than 4 units of course 199 or a combination of 198C and 199 may be applied toward the general electives under Plan I.

Plan II
No more than 4 units of course 198C or 199 may be applied toward the general electives under Plan II.
Graduate Major

Microbiology, Immunology, and Molecular Genetics MS, PhD

The graduate program emphasizes the areas of molecular genetics, cell biology, immunology, and viral and cellular 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.

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

Microbiology, Immunology, and Molecular Genetics

6. Microbiology for Nonmajors. (4) Lecture, four hours. Not open for credit to students with credit for course 101. Designed for nonscience students; introduction to biology of microorganisms (bacteria, viruses, protozoa, algae, fungi), their significance as model systems for understanding intracellular, cellular, and multicellular processes, and their role in human affairs. P/NP or letter grading.

10. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, or prerequisite, course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, 23L. Course 100AL is requisite to 103BL. Limited to Microbiology, Immunology, and Molecular Genetics and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel bacterial viruses (phages). Working in teams, students conduct research projects that incorporate techniques from immunology, cell biology, molecular biology, and use of bioinformatics tools and computational analysis software. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenship, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

103BL. Advanced Research Analysis in Virology. (4) Laboratory, six hours. Requisites: 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 virology. 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, 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.

105. Biological Microscopy. (4) Lecture, four hours; laboratory, three hours (five weeks only). Requisite or corequisite: Physics 1C or 5B or 6C. Introduction to modern microscopy techniques used in biochemistry, medicine, 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; fluorescence correlation spectroscopy, and other scanning probe microscopy modalities. Practical experience in research provided through five carefully designed electron microscopy laboratory modules. P/NP or letter grading.


109AL. Research Immersion Laboratory in Microbiology. (5) Lecture, three hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforcing requisite to 109BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel microorganisms. Working in teams, students conduct research projects that incorporate techniques in microbiology and molecular biology and involve use of bioinformatics tools and software. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to create and evaluate hypotheses or experimentally ad-
158. Microbial Genomics. (4) Lecture, three hours, discussion, one hour. Requisites: course 101, Chemistry 153A. Evolution, biodiversity, and sequencing of genomes; bacterial and viral genomes; bioenergetics; gene knockouts; genomics of antibiotic resistance; protein secretion; cell biology; and novel biochemical pathways. Letter grading.

168. Molecular Parasiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Description of parasites, including their life cycle and mode of infection, as well as their pathogenicity and host response. 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 transform gene therapy into functional gene therapy. Letter grading.

M178. Quantitative Regulatory Biology and Signal Transduction. (4) Same as Computational and Systems Biology 18B and Physiological 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 generated. Letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 196A or 198A. Students read and discuss scientific articles, and give presentations on research topics using relevant primary literature. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, and diverse approaches to research and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects, improvement of oral and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced requisites: course 180A, and Life Sciences 107. Enforced corequisite: course 196A or 198A. Students give presentations similar 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 prepare and present scientific posters. Production of deliverables that demonstrate research achievements and creation of scientific writing accomplished as skilled researchers. Letter grading.

C165A. Immunology. (5) Formerly numbered 185A. Lecture, three hours; discussion, 90 minutes. Requisites: Life Sciences 3 and 4, and 23L, or 7A, 7B, 7C, and 23L. Applications of immunology to human populations, with emphasis on genomics, family studies, and controversial issues, such as transgenic organisms. Letters 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 C285. Letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings from current literature in microbiology, 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 microbiology, immunology, and molecular genetics. Letter grading.

194A. Research Group Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Designed for undergraduate students who are part of research group in department faculty laboratory. Discussion of research methods and current literature in field or of research of faculty members or students. 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 communication and effective use of software for oral presentations. May be repeated for credit. Letter grading.

196A. Research Apprenticeship I in Microbiology, Immunology, and Molecular Genetics. (4–4–4) Tutorial, 12 hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L, 3.0 premajor and/or major grade-point average, and at least one term of prior experience in same laboratory in which 196A research is to be conducted. 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 experiences under direction 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, and analyze results. How to record information from experimental activity into laboratory notebooks and to write research proposals. Letter grading.

196B. Research Apprenticeship II in Microbiology, Immunology, and Molecular Genetics. (4) Tutorial, 12 hours. Enforced requisite: course 196A. Enforced corequisite: course 254A through 254D. Expansion of scope, increasing depth, and implementation of independence in research to be performed in same laboratory as course 196A to facilitate learning and implementation of goals described in first 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. Open for credit to students with consent of faculty. 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. Honors Research in Microbiology, Immunology, and Molecular Genetics. (4–4–4) Tutorial, 12 hours. Course 198A is requisite to 198B, which is limited to junior and senior honors students. Individual research project requiring student to do original research. Honors program students. Directed individual research for departmental honors; students must have faculty sponsor. Admission to research 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. (4) Tutorial, 12 hours. Preparation: minimum 2.5 grade-point average in premajor and major. Supervised individual research project under guidance of departmental faculty mentor. Copy of report 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. Requisite: Life Sciences 4, or 7A, 7B, and 7C. Designed for graduate research. Designed for graduate research. During past 25 years, molecular revolution has greatly increased power and scope of mouse genetics, and today mouse is primary experimental model in virtually all fields of biology and medicine. 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 cellular dissection of diseases. Concurrently scheduled with course C122, S/U or letter grading.

M229. Molecular Mechanics of Host/Pathogen Interaction. (4) Same as Pathology M229. Lecture, two hours. Discussion of two key properties of microorganisms: (1) molecules that can sidestep host defenses and (2) molecules with which they interact. How to record information from experimental activity into laboratory notebooks and to write research proposals. Letter grading.

C234. 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 college. Responsibilities and ethical conduct of investigators in research, research 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, 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, population genetic principles, and recent advances in molecular and cellular immunology. Oral presentation required. S/U or letter grading.

262A-262B-262C. Seminars: Current Topics in Immunobiology of Cancer. (2–2–2) Seminar, two hours. Designed for graduate students (or undergraduate students with consent of instructor). Discussions of recent literature and current research in cancer, with emphasis on fundamental studies involving cell-mediated immunity, humoral response, tumor-specific techniques, and discussion of reports on scientific meetings. Each course may be repeated for credit. S/U or letter grading.


C185A. Advanced Immunology and Applications. (2) Lecture, 90 minutes. Preparation: one course in immunology. Covers similarities and differences between host immune reactions 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 pathogenic or cancer cells without triggering inflammatory and autoimmune diseases, including new cancer immunotherapies. Concurrently scheduled with 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.

298. Current Topics in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Presentation of student oral critiques and participation in discussions on assigned topics. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, two hours. Discussion of current trends and strategies in teaching, 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. (2) 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

ARMY ROTC

120S Student Activities Center

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
Overview
In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Army ROTC program allows students to qualify for an officer’s commission in the Army while completing their college education. The ROTC curricula are not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course requirements of a major. For students contracted in the Military Science Department, 26 units of military science credit may be applied toward the requirements for the bachelor’s degree. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four- and three-year programs for first years 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 income. Scholarships cover full tuition 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 Reserve or National Guard.

Undergraduate Study
Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-unit course per term and physical fitness sessions one to three times per week, depending on the participation-level requirements.

The military science curriculum is divided into two parts: (1) the Basic Course, two years of lower-division study during which students must complete 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 I and II courses. 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 Reserve, National Guard, or Active Army.

Military Science
Lower-Division Courses
Z. Leadership Laboratory. (No credit) Laboratory, three hours (lower-division cadets) or four hours (upper-division cadets). All cadets must be concurrently enrolled in a military science course; upper-division cadets must also be under a contracted obligation with department. Designed to allow cadets to apply leadership techniques and military skills taught in classroom and to develop their confidence as future military officers. No grading.
11. Foundations of Officership. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer’s responsibilities. Framework established to understand officership, leadership, military customs, briefings, and life skills such as physical fitness, nutrition, and time management. P/NP or letter grading.

12. Basic Military Leadership. (2) Lecture, one hour. 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/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 possibilities at UCLA. P/NP grading.

21. Individual Leadership Development. (3) Lecture, two hours. Introduction to various individual leadership personality types, in combined lecture, discussion, and experiential learning, to assist students in developing their own individual leadership style. Additional emphasis on military factors and principles of leadership, goal setting, basic communication, and consideration of others. P/NP or letter grading.

22. Leadership Development and Military Planning. (3) Lecture, two hours. Requisite: course 21. Discussion of various methods of communication, planning, and decision making, through combined lecture, discussion, and experiential learning, with focus on written communication and group communication essential for leadership development. Introduction to and application of military planning process in developing or P/NP or letter grading.

23. Subordinate Development and Army Organization. (3) Lecture, two hours. Requisite: course 22. Discussion/application of team-building techniques and subordinate development, through combined lecture, discussion, and experiential learning, with additional focus on commissioned officer, branches, and Army organization. Application of counseling techniques, motivation, and consideration of ethics and values for modern leaders. P/NP or letter grading.

Upper-Division Courses


131. Tactical Planning and Analysis. (4) Lecture, three hours; laboratory, four hours. Introduction to leadership development process used to evaluate military leadership performance. Examination of how to conduct individual and small unit training as well as introduction to basic principles of tactics. Emphasis on study of reasoning skills, troop leading procedures, and military orders process. P/NP or letter grading.

132. Army Officership and Communication. (4) Lecture, three hours; laboratory, four hours. Examination of officership that culminates in detailed case study. Interpersonal communication, with focus on general communication theory as well as written and spoken communication skills. Presentation of information briefing to receive feedback from both instructor and fellow students. P/NP or letter grading.

133. Leadership and Problem Solving. (4) Lecture, three hours; laboratory, four hours. Examination of role communications, values, and ethics play in effective leadership, including ethical decision making, consideration of transactionsal and transformational leadership, and survey of Army leadership doctrine. Emphasis on improving oral and written communication abilities and leadership development and assessment. P/NP or letter grading.

141. Leadership and Management. (4) Lecture, three hours; laboratory, four hours. Interactive course to develop student proficiency in planning and executing complex training operations. Counseling techniques and development of skills needed to lead various organizations. Exploration of training management, leadership skills, and development counseling techniques. P/NP or letter grading.

142. Leadership, Ethics, and Military Law. (4) Lecture, three hours; laboratory, four hours. Interactive course to enhance understanding of organizational culture, leadership, ethics, and understanding and enhancement of leader-member relations, assessment of organizational culture and ethical climate, and how to effect change in organizations. Exploration of foundations of military law and law of war. P/NP or letter grading.

143. Officership: Professional Military Leadership. (4) Lecture, three hours; laboratory, four hours. Capstone interactive leadership course to prepare students for challenges of being commissioned officers in U.S. Army by discussing various leadership challenges and case studies. Study of military units, with specific emphasis on joint operations involving Army, Navy, Air Force, and Marine Corps assets, military operations other than war, and global war on terror. Other topics include personnel administration, manpower, and financial planning. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Military Science. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Molecular and Medical Pharmacology

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Molecular and Medical Pharmacology
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Arion F. Hadjiioannou, PhD, Vice Chair, Crump Institute
Lily Wu, MD, PhD Vice Chair, Equity, Diversity, and Inclusion
Ting-Ting Wu, PhD, Vice Chair, Education

Faculty Roster

Professors
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Samson A. Chow, PhD
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Johannes Czernin, MD
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Raphael D. Levine, PhD
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Gerald S. Lipshutz, MD, in Residence
Roger S. Lo, MD, PhD
Edythe D. London, PhD, in Residence
Johannes Czernin, MD, William P. Melega, PhD, in Residence
Robert M. Prins, PhD, in Residence
Antoni Ribas, MD
Orian Shirihai, MD, PhD
Desmond J. Smith, MD, PhD
Hsian-Rong Tseng, PhD
R. Michael van Dam, PhD
Owen N. Witte, MD (President 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. Buetzer Professor Emeritus of Medical Research)
Richard W. Olsen, PhD
Nagichettiar Satyamurthy, PhD
Heinrich R. Schellberg, MD, PhD
Ren Sun, PhD
Anna M. Wu, PhD
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 Ahman-son Translational Imaging Division—with its nuclear medicine and positron emission tomogra-phy (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 mentor-ship 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.

Requirements
Official, specific degree requirements are de-tailed 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 in small groups 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 (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
194. Group Seminars and Discussions: Cross-Disci-plinary Scholars in Science and Technology Proj-ect. (4) Seminar, two hours; discussion, two hours. Limited to Cross-Disciplinary Scholars in Science and Technology (CSST) students. Communication and col-laboration skills, specifically in interdisciplinary set-tings and introduction to research project design and proposal process. Students submit written CSST project proposal and give oral presentations of scien-tific proposals. May be repeated for credit. Letter grading.
199. Directed Research in Molecular and Medical Pharmacology. (2 to 6) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised indi-vidual research under guidance of faculty mentor. Special studies in pharmacology, including either reading assignments or laboratory work or both, de-signed 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) Lab-oratory, eight to 20 hours. Individual projects in labora-tory research for beginning graduate students. At end of each term students submit to their supervisor re-pports 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 in-synthesis in biochemical research, peptidomi-metics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and di-rected 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 M205B.) Seminar, one hour. Re-quire: course M205A. Selected talks and papers pre-sented by training faculty on solving problems and uti-lizing 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 phar-macology and mechanisms of drug action at organ-ismal, tissue, cellular, and molecular levels, with emphasis on receptors, receptor/effector coupling, neurotransmitters, cardiovascular pharmacology, au-tonomic and central nervous system pharmacology. Letter grading.
M246. 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 se ries of imaging laboratories. Letter grading.
M257. Introduction to Toxicology. (4) (Same as Pa-thology M257.) Requisite: course M241. Biochemical and systemic toxicology, basic mechanisms of toxi-cology, and interaction of toxic agents with specific organ systems. S/U or letter grading.
M258. Pathologic Changes in Toxicology. (4) (Same as Pathology M258.) Requisite: course M257. Designed to 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, 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 speakers and bring their individual concerns 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 within academic environment. Application of course material by-performing feasibility studies that have potential to receive funding and become actual companies. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs, identifying and evaluating new venture opportunities, development of financing, and entry and exit strategies. S/U or letter grading.

288. Gene Therapy. (4) Lecture, three hours; discussion, one hour. Introduction to basic concepts of gene therapy, wherein treatment of human disease is based on transfer of genetic material into an individual. Discussion of molecular basis of disease, gene delivery vectors, and animal models. Letter grading.

291. Special Topics in Pharmacology. (4) Lecture, four hours. Examination in depth of topics of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

292. Research Projects, Proposals, and Presentations. (6) Lecture, four hours; discussion, four hours. Limited to departmental majors. Introduction to format and requirements of research proposals, so students can critically read primary papers and give formal scientific presentations, ask new questions, formulate new hypotheses, and construct research projects, under- standing balance of importance, novelty, and feasibility, and develop ability to think independently, creatively, and comprehensively. Letter grading.


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Molecular Biology / 653

Molecular Biology

Interdepartmental Program

College of Letters and Science

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Molecular Biology

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Program e-mail

Hilary A. Coller, PhD, Chair

Faculty Committee

Hilary A. Coller, PhD (Molecular, Cell, and Developmental Biology)
Feng Guo, PhD (Biological Chemistry)
Elissa A. Hallem, PhD (Microbiology, Immunology, and Molecular Genetics)
Alvaro Sagasti, PhD (Molecular, Cell, and Developmental Biology)
Thomas A. Vallim, PhD (Biological Chemistry, Medicine)

Overview

The Doctor of Philosophy (PhD) in Molecular Biology is offered under the supervision of an interdepartmental committee. The Molecular Biology Institute serves this committee and the various departments concerned in support of faculty research and teaching associated with the PhD program. Staff members are from participating departments and from the Molecular Biology Institute. Areas for study include cell biology, developmental biology and neurobiology, nucleic acid biochemistry, gene regulation, immunity/immunology, and pathogenesis, molecular evolution and paleobiology, oncogenes and signal transduction, plant molecular biology, protein and enzyme structure and function, genomics, bioinformatics, and structural biology.

Graduate Major

Molecular Biology MS, PhD Requirements

Official, specific degree requirements are 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 quarter. 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


235. Rigor and Reproducibility. (2) Lecture, one hour; discussion, one hour. Two cornerstone 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 program faculty. Students learn that reproducibility is common problem in biomedical research and how to improve it. S/U grading.

252. Writing for Science (1) Seminar, one hour. Corequisite: Biological Chemistry 251A or 251B or 251C. Limited to first-year Molecular Biology PhD students. Development of specific written skills in scientific writing within context of one advanced course on mechanics of gene transcription. Letter grading.

254A. Concepts in Molecular Biosciences. (3) Lecture, three hours; discussion, two hours. Enforced requisites: course 254A. Important biological problems that have been genetically analyzed in different organisms or small number of related problems. Major genetic approaches used in relevant organisms, including both forward and reverse genetic approaches, genetic interactions between genes (genetic enhancers and suppressors), transgenic technology, and systematic genomic strategies. Letter grading.

254C. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisites: courses 254A, 254B. Molecular mechanisms underlying complex problems in cell biology. Experimental approaches used to define mechanisms involved in protein targeting, cell structure and subcellular organization, cell communication, and intracellular signaling. Analysis of pathways that connect these cellular processes. Letter grading.

254D. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisites: courses 254A, 254B, 254C. Application of biochemical, molecular biological, genetic, and cell biological approaches to understand specialized topics in life and biomedical sciences, including developmental disease, stem cell biology, synaptic transmission in nervous system, cancer, and heart disease. Letter 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, form, format of scientific manuscripts, art of editing, and issues in publication and peer review. Letter grading.

298. Current Topics in Molecular Biology. (2) Seminar 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 a forum for gaining effective mentoring of undergraduate students in science laboratories. Priority given to those who either have prior experience as mentor or are currently mentoring undergraduate students. ntensive training in the development of effective mentoring skills, including the development of an understanding of the role of the mentor, the process of mentoring, and the challenges of mentoring. Letter grading.

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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, CELL, AND DEVELOPMENTAL BIOLOGY

College of Letters and Science

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Amander T. Clark, PhD, Chair

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Hilary A. Coller, PhD
Arjun Deb, MD
Robert B. Goldberg, PhD
Volker Hartenstein, PhD
Ann M. Hirsch, PhD
Steven E. Jacobsen, PhD
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Andrew S. Goldstein, PhD, In Residence
Lachezar (Luke) A. Nikolov, PhD
Jesse R. Zamudio, PhD

Lecturers
Katie J. Gallagher, PhD
Pei-Yun Lee, PhD

Adjunct Professors
M. Luisa Iruela-Arispe, PhD
D. Leanne Jones, PhD

Adjunct Assistant Professor
Ira E. Clark, 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

Entry to the Major

Transfer Students

Transfer applicants to the Molecular, Cell, and Developmental Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, one year of general chemistry with laboratory for majors, and at least one year of calculus. Students with lower units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory, one year of general chemistry with laboratory, one year of calculus, and one year of physics. A second semester of calculus is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

The Major

Required Courses: Chemistry and Biochemistry 153A, Life Sciences 107, Molecular, Cell, and Developmental Biology 138, 144, 165A, and one laboratory course from Molecular, Cell, and Developmental Biology 104AL, 150AL, 187AL, or 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 Biochem-
isty C100, 153C, 153L, C159, CM160A, Computer Science CM124, CM186, Microbiology, Immunology, and Molecular Genetics 100L, 101, 102, 105, 158, 168, 174, C185A, Physiological Science 121, 125, or 174, of which at least 5 units must be molecular, cell, and developmental biology courses. The remaining 10 units may be taken from the above courses or from Biostatistics 100A or Statistics 100A, Ecology and Evolutionary Biology 110, 121, 162, Human Genetics C144, or Physiological Science 166.

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Molar, Cell, and Developmental Biology 191 and three research courses (12 units minimum) from 198A, 198B, and 198C, culminating in a thesis.

Computing Specialization
Majors in Molecular, Cell, and Developmental Biology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10A, 10B, 10C, 16A, and Life Sciences 40 or Statistics 13, and (3) completing one course from Computer Science CM124, CM186, Chemistry and Biochemistry C100, CM160A, Molecular, Cell, and Developmental Biology 187AL, or Physiological Science 125. A grade of C or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Student Affairs Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major
Credit for a maximum of two upper-division developmental 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 elective 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 and Biochemistry 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
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.

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.

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. (5) Lecture, two hours; laboratory, six hours. Limited to 24 students in Collaborative Undergraduate Research Laboratory (CURL), sponsored by Howard Hughes Medical Institute Professors Program. Basic training in biological research, covering topics in molecular genetics, molecular biology, model organism biology, and data analysis. Letter grading.
50. Stem Cell Biology, Politics, and Ethics: Teasing Apart Issues. (5) Lecture, three and one half hours; discussion, 90 minutes. Developmental biology of various types of human stem cells. Important functional differences between embryonic, hematopoietic, and adult stem cells, as well as the ethical implications. P/NP or letter grading.
60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and exploration of how and why bioethics is relevant to reproductive screening, policy formation, public regulation, and law. 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.
89. Honors Seminars. (1) 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.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
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 fact. 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.
100. Introduction to Cell Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L. Not open to credit to Molecular, Cell, and Developmental Biology majors or to students with credit for course 165A. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, membrane transport, cell signaling, and intracellular trafficking. Letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. (6) Lecture, two hours; laboratory, eight hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Course 104AL is prerequisite to 104BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Discovery-based research using sea urchins as model system. Students determine expression of unstudied sea urchin genes using combination of molecular biology and computational techniques. May not be repeated for credit. Letter grading.

104BL. Advanced Research Analysis in Developmental Biology. (4) Laboratory, six hours. Enforced requisite: course 104AL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to analyze datasets, or design and develop computational techniques. 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 differentiation leading to development of complex organisms from single fertilized egg. Development of model organisms to understand conserved nature of developmental decisions across animal kingdom, distinct features and 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, and cell signaling in generating shape of embryo, organs, and tissues. Mechanisms by which cells become different from and communicate with one another to coordinate their activities in time and space. Special emphasis on experimental approaches used to address these fundamental questions that determine how organized tissues and organs are formed and maintained throughout our lifetimes. Letter grading.

140L. Cancer Cell Biology. (5) Same as Biological Chemistry M140L. Lecture, three hours; discussion, one hour. Requisite: course 165A. Cancer causes and genetics. Effects of cell transformation on cell growth and metabolism. Altered cell cycle, metallabolism, and differentiation pathways in cancer cells. Tumor microenvironment contributions to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading.

141. Molecular Basis of Development 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 animals. Molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on developing critical understanding of current experimental approaches in this field. Not currently scheduled with course C239. Letter grading.

143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; discussion, one hour. Requisites: course 138, Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Cellular and molecular basis of animal embryology, with primary emphasis on vertebrate organ development, but including pertinent material from Drosophila and other invertebrate model organisms. 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, and 107. Not open for credit to students with credit for Chemistry M153B. Continuation of course 150. Understanding of fundamental genetic processes in cells and current techniques for using molecular biology as laboratory tool. Special emphasis on molecular mechanisms that relate to chromatin and histone modifications, DNA replication and repair, transposition and microRNAs, and splicing. Application of molecular biology as tool to understand embryonic development, reprogramming, cancer, and stem cells. Development of sophisticated understanding of fundamental molecular principles in order to interpret and apply to modern research tools for biological research. Letter grading.

150. Research Immersion Laboratory in Plant-Microbe Ecology. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: Life Sciences 7A, 7B, 7C, 23L. Course 150BL is prerequisite to 150BL. Limited to Molecular, Cell, and Developmental Biology majors. Introductory plant-microbe biology laboratory to give students hands-on experience collecting and analyzing various plant-microbe interactions about plants and microbiome. Letter grading.

150BL. Human Genetics and Genomics. (5) Same as Microbiology CM156L. 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, cytogenetics, pharmacogenetics, population genetics, and genetic counseling. Letter grading.

165A. Biology of Cells. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 107. Not open for credit to students with credit for course 100. Molecular basis of cellular structure and function, with focus on each individual cellular organelle, as well as interactions of organelles 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 research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.

165B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, one hour. Requisites: for 30B, Life Sciences 3, or 7A, 7B, and 7C. Not open for credit to students with credit for course 100. Molecular biology of eukaryotic cell nucleus, with focus on structure, organization, replication, and repair of eukaryotic genome; eukaryotic gene expression, including transcription, 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 relates to information examined in lectures. Letter grading.

160A. Principles of Light Microscopy. (4) Lecture, two hours; laboratory, two hours. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Not open for credit to students with credit for course 100. Molecular basis of cellular structure and function, with focus on each individual cellular organelle, as well as interactions of organelles 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 research. Exposure in discussions to recent scientific articles that directly relate to information examined in lectures. Letter grading.

160B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, one hour. Requisites: for 30B, Life Sciences 3, or 7A, 7B, and 7C. Not open for credit to students with credit for course 100. Molecular biology of eukaryotic cell nucleus, with focus on structure, organization, replication, and repair of eukaryotic genome; eukaryotic gene expression, including transcription, 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 relates to information examined in lectures. Letter grading.

M175C. Neuroscience: From Molecules to Mind—Behavioral and Cognitive Neuroscience. (3) (Same as Psychology PSY175C.) Lecture, four hours; discussion, 90 minutes. Prerequisite: course M175A with grade of C– or better. The role of brain function in the regulation of behaviors and cognition. May be repeated for credit with topic change. P/NP or letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 180B. Students present scientific articles, and give presentations, introducing research topics using relevant primary literature. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects, improvement of oral and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced corequisite: courses 180A, 196A. Enforced corequisite: Honors content noted on transcript. Prerequisites: courses 180A and 196B. Students give presentations similar to laboratory meeting or research symposium talk in which speakers discuss project objectives, methodology, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

187AL. Research Immersion Laboratory in Genom- biology. (5) Lecture, three hours; laboratory, six hours. Enforced corequisite: course 187AL. Enforced corequisite: Honors content noted on transcript. Students propose original research projects related to genome 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. Letter grading.

188. Special Courses in Molecular, Cell, and Develop- mental Biology. (2) Seminar, two hours. Departmental consent and on-campus arrangements required. May provide research experience. May be repeated for credit with topic change. Letter grading.

188SA. Individual Study 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 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Design as adjunct to upper-division lecture course. Individual study 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. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Limited to juniors/senior Molecular, Cell, and Developmental Biology majors. Intended for students with strong commitment to pursue graduate studies in molecular, biochemical, physiological, and biomedical fields. Weekly variable topics course with reading, discussion, and presentation of paper selected from current literature. May be repeated once for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (4) Seminar, three hours. Limited to juniors/senior Molecular, Cell, and Developmental Biology majors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative projects. Students receive 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 majors. May be repeated once for credit. P/NP or letter grading.

193. Journal Club Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Corequisite: course 198A or 198B or 198C or 199A or 199B or 199C. Limited to juniors/seniors. Development of in-depth understanding of and ability to discuss current literature in field. May be repeated for credit. P/NP or letter grading.

194A. Research Group Seminars: Current Topics in Biomedical Sciences. (2) Seminar, two hours. Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Involvement in laboratory’s weekly research group meeting to encourage student participation in research and to stimulate progress in specific research area. Participation in laboratory’s weekly research group meeting to encourage student participation in research and to stimulate progress in specific research area. Letter grading.

199A or 199B or 199C. Limited to juniors/seniors. Enforced corequisite: Honors content noted on transcript. Letter grading.
apply scientific methods; propose hypothesis, identify experiments to address hypothesis, perform experiments, and analyze results. How to record information from experimental activities into laboratory notebooks and to write research proposals. Letter grading.

198A. Honors Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Enforced requisites: courses 180A, 196A. Enforced corequisite: course 180B. 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.

198C. Honors Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Course 198A is requisite to 198B, which is requisite to 198C. 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 mentor. Must be taken for at least three terms and for total of 12 units. Report on progress must be submitted to undergraduate adviser each term 198 course is taken. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

199A. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Preparation: minimum 3.0 grade-point average in majors. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Course 199A is requisite to 199B, which is requisite to 199C, which is requisite to 199D. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or pre-approved outside faculty members. Other junior/senior life sciences majors may enroll for research projects in laboratories with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Culuminating research project designed to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least two terms and for total of at least 8 units. Individual contract required. In Progress grading (credit to be given only on completion of course 199B). Students may elect to enroll in additional research courses 199C and 199D (letter grading). Report on progress must be presented to department each term 199A through 199D course is taken.

199B. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Preparation: minimum 3.0 grade-point average in majors. Requisites: course 199A, Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to juniors/seniors. Department majors or pre-approved outside faculty members. Other junior/senior life sciences majors may enroll only for research projects in laboratories with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Culuminating research project designed to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least two terms and for total of at least 8 units. Individual contract required. Letter grading. Students may elect to enroll in additional research courses 199C and 199D (letter grading). Report on progress must be presented to department each term 199A through 199D course is taken.

199C. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Preparation: minimum 3.0 grade-point average in majors. 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 mentor. Must be taken for at least three terms and for total of 12 units. Report on progress must be submitted to undergraduate adviser each term 199C course is taken. Individual contract required. Letter grading.

199D. Directed Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Preparation: minimum 3.0 grade-point average in majors. Requisites: course 199B, Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to juniors/seniors. Department majors or pre-approved outside faculty members. Other junior/senior life sciences majors may enroll for research projects in laboratories with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Culuminating research project designed to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least two terms and for total of at least 8 units. Individual contract required. Letter grading. Students may elect to enroll in additional research courses 199C and 199D. Report on progress must be presented to department each term 199A through 199D course is taken.


224. Molecular Basis of Vascular Biology. (4) Lecture, four hours. Life Sciences majors may enroll with sponsorship from department faculty members. Supervised individual research under guidance of faculty mentor. Culuminating research project designed to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least two terms and for total of at least 8 units. Individual contract required. Letter grading. Students may elect to enroll in additional research courses 199C and 199D (letter grading). Report on progress must be presented to department each term 199A through 199D course is taken.

226. Honors 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 mentor. Must be taken for at least three terms and for total of 12 units. Report on progress must be submitted to undergraduate adviser each term 198 course is taken. Individual contract required. 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) Lecture, one hour. Requisites: Chemistry M230B, 10 hours. Corequisite: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. S/U or letter grading.

M234. Genetic Control of Development. (4) (Same as Biological Chemistry M234) Lecture, four hours. Topics in genetic control of development: molecular biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell communication. 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 pro-
cesses 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. Requires: 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. Requires: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most people think of plants as static organisms, yet they live in world of symbiosis and community. Plants change atmosphere, enrich soil, and communicate with insects, bacteria, and each other—Earth’s ultimate symbiote. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to make that biomass more effective. Introductory course in chemical ecology and how natural compounds affect mass in sustainable manner. Introductory course. Seminar on specific topics in plant development. Content varies each term. 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-based 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. Preparation: knowledge of 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. Limited to graduate students. Advanced courses based on research papers on fundamental cellular mechanisms governing development and disease. Includes results from genetically determined as well as 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. Overview 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 are used to design 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 signal transduction systems and transcription factors. S/U or letter grading.


283. Seminar: Topics in Cell Biology. (2) Seminar, two hours. Discussion of various topics on biology of eukaryotic cells. Topics vary from year to year and 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 roles in cell and developmental biology. Letter grading.

286. Seminar: Plant Development. (2) Seminar, one hour; discussion, two hours. Preparation: one plant physiology 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.


295. Seminar: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. In-depth surveys of recent research and literature in research specialties of faculty members. S/U or letter 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 in molecular, cell, and developmental biology research. Letter 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.

495. 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 or letter 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.

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

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

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 for credit. 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 (R01) 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 applications. 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 myopathy, 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, genomics, 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 and cellular 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.

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 or letter grading.

596. Directed Individual Study or Research. (2 to 10) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

599. Research for PhD Dissertation. (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

MOLECULAR TOXICOLOGY

Interdepartmental Program

Jonathan and Karin Fielding School of Public Health

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Molecular Toxicology

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Shaily Mahendra, PhD (Civil and Environmental Engineering)

Robert H. Schieltz, 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 toxin action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phenomena, and the growth of the sophistication of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

Graduate Major

Molecular Toxicology PhD Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 a 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, toxicology of major pollutants including air pollution, persistent organic pollutants and dioxins, toxicology of major organ including liver, kidney, immune, reproductive and nervous system, and nanotoxicology. Discussion of various papers. Letter grading.
M247. Advanced Concepts in Gene-Environment Interactions. (4) (Same as Environmental Health Sciences 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 inflamed, such as importance of epigenetics and of microbiome. S/U or letter grading.
296B-296F. Research Topics in Molecular Toxicology. (2–2) Research group meeting, two hours. Advanced study and analysis of current topics in molecular toxicology. Discussion of current research and literature in research specialty of faculty teaching course. S/U grading: 296B. Molecular Carcinogenesis. 296F. Genetic Toxicology.
596. Directed Individual Study or Research. (4) (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.
597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.
599. PhD Dissertation Research. (8 to 12) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

Music

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Inna Faliks, DMA
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Gloria C. Cheng, DMA
Don E. Franzen, JD
Herbert J. Hancock, DFA
Christopher Hanulik, BM
Wayne Shorter, BME
Peter F. Yates, DMA

Overview

The Department of Music offers undergraduate and graduate training in Western classical music, with specialized undergraduate programs...
in music composition, education, and performance. Jazz performance is also offered at the graduate level. The department is aligned with the Departments of Ethnomusicology and Musicology and the interdepartmental program in Global Jazz Studies, 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 Study
The department offers four-year bachelor’s degrees in music, music composition, music education, and music performance. The curriculum for all four degrees balances a classically oriented program of practical, theoretical, and historical studies with related performance and academic studies in non-Western music. Designed for students who want to combine fine musicianship with academic excellence, all four degrees are based on a core curriculum of theory, history, analysis, and individual and group performance. The music education major additionally offers preparation in pedagogical skills and innovative insights into theories and practice essential to teach music to the diverse student population of California and offer leadership in the field of arts education.

Graduate Study
At the graduate level, specialized studies leading 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 course work 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 thorough research. Students also display their ability to assemble an effective program in terms of pacing and variety and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Learning Outcomes
The Music major has the following learning outcomes:

- Proficiency appropriate for role in the recital
- Understanding of performance practices, as acquired through coursework and research, appropriate to the repertory being performed
- Ability to assemble an effective program in terms of pacing and variety
- Requisite stage presence and ability to communicate with audience in performance

Entry to the Major
Admission
Applications for the Music BA are not being accepted at this time.

Requirements
Preparation for the Major

Required: Music M6A, M6B, M6C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 61A, and two years (12 units) of performance organizations utilizing students’ major instruments (courses C185A through 185H and C186A through 186C), as assigned by the chair or designated faculty member.

The Major

Required: Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and six theory courses selected in consultation with a faculty adviser.

Policies
Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during the 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 prerequisite to both courses M6A and 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Music Composition BA

Capstone Major
The Music Composition major is a designated capstone major. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes as well as a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and thorough 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

Entry to the Major
Admission
For new and change-of-major applicants, students must submit a portfolio of compositions prior to the required audition and interview with the composition faculty.

Requirements
Preparation for the Major

Required: (1) Musicology—Music 60A through 60U in one instrument; (2) Theory—Music 104A or 104B, 106A, 106B, 116, 124A or 124B or 124C, 125A 125B, 125C, with grades of C or better; (2) Advanced composition studio—10 units from Music 169. In senior year, each student may elect one of the following courses: (1) Musicology 125A 125B, 125C, 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, 125A 125B, 125C, 127; (5) Electives—at least 4 units selected from all upper-division ethnomusicology, global jazz studies, music, music industry, or musicology courses; (6) Capstone composition recital—Music 169. In senior year, each student must present a senior recital as part of the capstone course to be preceded by a scoring course (Music 124A or 124B or 124C); the 30-minute recital includes a printed program with notes. All recitals are videotaped and archived. Performances are evaluated by a jury.
Policies

Preparation for the Major
All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Enrolling transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Music Education BA

Capstone Major
The Music Education major is a designated capstone major. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes; as well as a level of proficiency appropriate for their role in the recital 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 artistic proficiency and flexibility as performer and collaborator in varied settings, including chamber ensembles and large conducted ensembles
- Demonstrated knowledge of history and performance repertoire for a primary instrument or voice and representative works for chamber and large conducted ensembles from the majors periods of Western classical music, including contemporary compositions
- Demonstrated ability to apply knowledge of compositional form, historical context, performance practices, extended techniques, non-traditional notation, and current issues to performance of Western classical music
- Demonstrated knowledge about genres other than Western classic music or the scholarly study of music and/or the business practices associated with the music industry
- Conception, preparation, and performance of a public solo recital of Western classical music, including a printed program and program notes

Entry to the Major

Admission
Applicants are required to audition in their principal performance medium and interview with the music performance faculty.

Requirements
Preparation for the Major
Required: (1) 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 or vocal studio—12 units from Music 60A through 60U for instrumentalists or 15 units of Music 61A and 61C for vocalists; (4) Large conducted ensembles—18 units from Music C185A through 185H, as assigned by the chair or music education faculty member.

The Major
Required: (1) Theory—Music 120A, 120B, 120C, with grades of C or better; (2) History—Musicology 125A, 125B, 125C, with grades of C or better; (3) Music education—Music 110A, 110B, 110C, 110D, 114A, 114B, 114C, 114D, 114J, 115A, 115B, 115C, 116, 117, 119; (4) Advanced instrumental or voice studio—4 units from Music 160A through 160U for instrumentalists or 5 units of Music 161A and 161C for vocalists; (5) Public recital—2 units from Music 163A through 163V (vocalists must also enroll in Music 161C as corequisite to 163V) taken in the primary performance area; students must consult and receive approval from the assigned music education faculty member before scheduling recital, which may be scheduled as early as fall quarter of the junior year; and (6) Capstone project—Music 110D. All capstone projects in music education take the form of an electronic portfolio demonstrating mastery of program learning outcomes. The student’s portfolio must be submitted before Music 110D is completed.

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 recital and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety, and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Learning Outcomes
The Music Performance major has the following learning outcomes:

- Demonstrated artistic proficiency on a primary instrument or in voice
- Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
- Demonstrated artistic proficiency and flexibility as performer and collaborator in varied settings, including chamber ensembles and large conducted ensembles
- Demonstrated knowledge of history and performance repertoire for a primary instrument or voice and representative works for chamber and large conducted ensembles from the majors periods of Western classical music, including contemporary compositions
- Demonstrated ability to apply knowledge of compositional form, historical context, performance practices, extended techniques, non-traditional notation, and current issues to performance of Western classical music
- Demonstrated knowledge about genres other than Western classic music or the scholarly study of music and/or the business practices associated with the music industry
- Conception, preparation, and performance of a public solo recital of Western classical music, including a printed program and program notes

Entry to the Major

Admission
Applicants are required to audition in their principal performance medium and interview with the music performance faculty.

Requirements
Preparation for the Major
Required: (1) 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 or vocal studio—12 units from Music 60A through 60J; (2) Chamber ensembles—4 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D through 185H.

Keyboard: (1) Instrumental studio—12 units from Music 60S, 60T, or 60U; (2) Chamber ensembles, keyboard literature, and accompanying—8 units from Music C171, C175A through C175G, or C186A; (3) Large conducted ensembles—6 units from Music C185A through 185H.

Strings: (1) Instrumental studio—12 units from Music 60K through 60R; (2) Chamber ensembles—6 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D or C185E.

Voice: (1) Voice studio and voice coaching—18 units of Music 61A and 61B; (2) Singing dict—Music 74A, 74B, 74C; (3) Large con-
duced 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 167A through 167J. 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.

Keyboard: (1) Advanced instrumental studio—10 units from Music 160S, 160T, or 160U; (2) Chamber ensembles, keyboard literature, and accompanying—8 units from Music C171, C175A through C175G, or C186A; (3) Large conducted ensembles—6 units from C185A through 185H; (4) Electives—at least 12 units of upper-division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) Capstone instrumental recital—one course from Music 167A through 167J. 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.

Strings: (1) Advanced instrumental studio—10 units from Music 160K through 160R; (2) Chamber ensembles—6 units from Music C171, C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D or C185E; (4) Electives—at least 8 units of upper-division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) Capstone instrumental recital—one course from Music 167K through 167R. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes.

Voice: (1) Advanced voice studio and advanced voice coaching—15 units of Music 161A and 161B; (2) Advanced vocal repertoire, diction, and interpretation—4 units from Music C158A through C158C; (3) Large conducted ensembles—12 units from Music C185A, C185B, or C185C; (4) Electives—at least 4 units of upper-division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) Capstone voice recital—Music 161B and 168. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes.

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Strings

For classical guitar, harp, and string bass, students may petition to substitute alternative courses if there are no suitable chamber ensembles offered during the academic year. For classical guitar, students may petition to substitute Music C185A, C185B, or appropriate ethnomusicology ensembles.

The Major

All recitals are videotaped and archived; performances are evaluated by a jury.

Strings

For classical guitar, harp, and string bass, students may petition to substitute alternative courses if there are no suitable chamber ensembles offered during the academic year. For classical guitar, students may petition to substitute Music C185A, C185B, or appropriate ethnomusicology ensembles.

Graduate Majors

Master of Music

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

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 tonality, 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.

15. Art of Listening. (6) Lecture, three hours; discussion, one hour. Examination of composers, writers, and filmmakers whose creative efforts changed how world came to view American life as seen through Hollywood musicals. P/NP or letter grading.


17. 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.


30A-30B. History, Listening, and Survey of Piano Literature I, II. (2–2) Seminar, two hours. Strongly recommended for undergraduate piano and music education majors with piano as their main instrument. Survey course covering standard piano literature and

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 attitude at instrument, including physical movement as application of theory. Designed to help instrumentalists perform more efficiently and improve postural and performance anxiety. May be repeated with consent of instructor. Letter grading.

60A-60U. Instrumental Studio. (2) Each studio, one hour, one day a week; outside preparation, two hours, limited to 15. (Formerly numbered 60K.) String Bass. (Formerly numbered 60D.) Trumpet. (Formerly numbered 62A.) Trombone. (Formerly numbered 62C.) Tuba/Euphonium. (Formerly numbered 60E.) Clarinet. (Formerly numbered 61C.) Saxophone. (Formerly numbered 61A.) Flute. (Formerly numbered 61A.) Viola. (Formerly numbered 61B.) Orchestra. (Formerly numbered 61D.) Bassoon. (Formerly numbered 61B.) Saxophone. (Formerly numbered 60E.) French Horn. (Formerly numbered 60G.) Oboe. (Formerly numbered 60B.) Viola da Gamba. (Formerly numbered 60R.) Viola. (Formerly numbered 60L.) Harp. (Formerly numbered 60H.) Guitar. (Formerly numbered 60O.) Lute. (Formerly numbered 60K.) Violin. (Formerly numbered 60J.) Cello. (Formerly numbered 60G.) String Bass. (Formerly numbered 60D.) Piano. (Formerly numbered 60F.) Piano. (Formerly numbered 64A.) Organ. (Formerly numbered 64G.) 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. Enforced prerequisites: courses 20A, 20B, 20C. Limited to Music Composition students and designated for sophomores. One-on-one composition lessons with assignments and compositions tailored to student. Introduction to achieving mastery. Lessons address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility. May be repeated with consent of instructor. Letter grading.

74A-74B-74C. Introduction to Singing Diction. (2-2-2) Studio/demonstration/performance, 90 minutes; outside study, four to five hours. Development of International Phonetic Alphabet (IPA) transcription skills along with addressing issues of translation. Exploration of variety of vocal repertoire, including opera, art songs, early music, recitative, and folk songs. Transcript, 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 singing diction and development of English and Italian skills for beginning students. 74B. German. Introduction to basics of singing diction and development of German skills for beginning students. 74C. French. Introduction to basics of singing 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, to-sight-writing, melodic improvisation, performance in varied styles, and 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 prerequisite: 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, transposing, 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 vocal music. Class is conducted as much as possible through the use of aural 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 tabulature. May be repeated for credit with different option. 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. Introduction to techniques of vocal technique, including covering fundamentals of vocal technique, including covering basics of proper breath control, resonances, and style. 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. 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.

90T. Early Music Ensemble. (4) Same as Musicology CM90T.) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from 1200-1400. Early instruments may be used at instructor’s discretion. May be repeated for credit without limitation. P/NP or letter grading.

909. 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.) Seminar, four hours; discussion, one hour. Limited to Ethnomusicology, Music and Musicology majors. Faculty and students make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and become musicologists that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

104A. Modal Counterpoint. (3) Lecture, three hours. Enforced prerequisites: courses 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. Enforced prerequisites: course 120C (accelerated section). In-depth exploration of polyphonic styles and textures since 1750, with emphasis on late-19th and 20th-century modes of expression, through written and oral performance. P/NP or letter grading.

106A. Orchestration I. (4) Discussion, three hours. Enforced prerequisites: 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. Enforced prerequisites: courses 106A, 120C (accelerated section), 123C. Scoring and analysis for ensembles and full orchestra. P/NP or 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 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, eight hours. Enforced prerequisite: course 20A. Introduction to music education by development of concepts, attitudes, and skills necessary to teach music and philosophical, historical, cultural, and psychological foundations of music education, with emphasis on learning theory and psychology of music learning. Contextualization of concepts by engaging in nontraditional 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. Enforced prerequisite: course 20A. Introduction to music education by development of concepts, attitudes, and skills necessary to teach music and philosophical, historical, cultural, and psychological foundations of music education, with emphasis on learning theory and psychology of music learning. Contextualization of concepts by engaging in nontraditional modes of music learning, including systematic aural transmission and informal learning. Letter grading.
110C. Comparative Study of Choral Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Requisites: courses 20A, 20B, 20C, 110A, 119A, 120A, 120B, 120C. Preparation of students for teaching choral music at middle and high school levels. Development of understanding of developmental characteristics, diverse cultures, and learning needs of adolescents and design of effective instructional strategies that are age-appropriate and sensitive to students’ background. Diverse practices and learning processes in choral music of American and world serve as basis of comparative study, with emphasis on comprehensive music education through performance. Frequent field visits. Letter grading.

110D. Comparative Study of Instrumental Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced requisites: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Critical study and analysis of philosophy, history, organization, curriculum, and literature of music programs in elementary and secondary instrumental music instruction in traditional and nontraditional settings. Development of strategies and techniques to teach music in group settings. Completion of capstone projects. Emphasis on preparing participants to teach in inclusive music programs. Frequent field experiences. Letter grading.

112. Guided Field Experiences in Music Education. (1) Field study course, three hours. Initial field experiences for students preparing for careers in music education to examine single and multiple components of music education. Letter grading. 

114A–114B. Study of Instrumental Techniques. (1–2) Studio, three hours. Requisite or corequisite: course 20A. Applied studies in basic performance techniques and introductory level repertoire. 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 singing, focusing on vocal instruction in choral classroom. Focus on application of vocal techniques to choral music teaching at K-12 school settings.

11AJ. Piano Skill in Classroom. (1) Activity, two hours. Designed for Music Education majors. Development of piano skills and competencies that enable students to function successfully in general music, instrumental ensemble, and choral ensemble classrooms. Letter grading.

115A–115B–115C. Study of Instrumental Techniques. (2–2–2) Studio, four hours; outside study, two hours. Applied 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: course 116. Study and practice of conducting both instrumental and choral repertoire. In addition to further development of conducting techniques, focus on conducting 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; outside study, four hours. Conducting basics, baton technique, beat patterns, dynamics, score preparation, and analysis. May be repeated once for credit. Concurrently scheduled with course C218B. P/NP or letter grading.

C118B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C118A. Vocal and choral pedagogy, vocalizing and warm-up techniques, diction, 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 118C. Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisites: courses 10A, 20B, 21B, 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: passing score on departmental first-year examination. Requisite: course 20B with grade of C (2.0) or better. Theory: baroque counterpoint including choral prelude; two-part invention; exposition and first modulation of three-part invention; canonic principles; analysis of inventions, canons, and fugues. Musician ship: sight-singing of extended chromaticism; advanced harmonic dictation (diatonic and chromatic); keyboard harmonization of modulating melodies; elementary score reading. P/NP or letter grading.

120B. Music Theory V. (4) Lecture, four hours; discussion, four hours; listening, two hours. Requisite: course 120B with grade of C (2.0) or better. Theory: advanced chromatic harmony including development of harmony from 1850; analytical projects; style composition. Musician ship: advanced score reading; advanced harmonic dictation; preparation for departmental examination. P/NP or letter grading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, four hours; listening, two hours. Requisite: course 120B with grade of C (2.0) or better. Twenty-first-century harmonic language, including nonharmonic function, polytonality, free tonality, serialism, and minimalism. P/NP or letter grading.

121. Special Topics in 20th-Century Music. (4) Lecture, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers to schools of thought. Areas include atonality, serialism, and development of analytical methods appropriate to each repertoire. Letter grading. 140A. To 1700. Requisite: course M3C. Students must receive grade of C or better to proceed to next course in sequence. 140B. To 1800. Enforced requisite: course 140A with grade of C or better. 140C. To 1890. Enforced requisite: course 140B with grade of C or better.

C150. Keyboard Skills for Pianists. (2, 1–1) Activity, two hours; outside study, four hours. Applied music course focusing on necessary scoreresearch skills. Areas include sight reading, score transposing, 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 weekly score preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other related activities. Regular coaching with faculty members, weekly performance workshop, and rehearsals. Concurrently scheduled with course C455. P/NP or letter grading.


160A–160U. Advanced Instrumental Studio. (2 each) Studio, one hour; outside practice, six to eight hours. Limited to junior/senior Music Performance majors and Junior Music Education and Music Composition majors. Students must perform in noon concerts once during their junior year. Grades are assigned by applied instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 10 units. P/NP or letter grading. 160A. Trumpet. (Formerly numbered, formerly numbered 161B.) 160C. Bassoon. (Formerly numbered 161D.) 160D. Clarinet. (Formerly numbered 161C.) 160E. Saxophone. (Formerly numbered 161E.) 160F. French Horn. (Formerly numbered 161F.) 160G. Trombone. (Formerly numbered 162A.) 160H. Trombone. (Formerly numbered 162C.) 160L. Tuba/Euphonium. (Formerly numbered 162D.) 160U. Percussion. (Formerly numbered 162U.) 160V. Violin. (Formerly numbered 160A.) 160L. Viola. (Formerly numbered 160B.) 160M. Cello. (Formerly numbered 160C.) 160N. Trumpet. (Formerly numbered 162A.) 160Q. Harp. (Formerly numbered 160E.) 160P. Violin. (Formerly numbered 160F.) 160Q. Lute. (Formerly numbered 160R.) 160V. Viola da Gamba. (Formerly numbered 160A.)
163H. Saxophone. (Formerly numbered 164A.) 160T. Organ. (Formerly numbered 164B.) 160U. Harpsichord. (Formerly numbered 164C.)

161A. Advanced Voice Studio. (2) (Formerly numbered 165.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161B or 161C. Limited to upper-division Music Education majors and Music Performance majors specializing in voice. 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 credit for maximum of 20 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 Education majors. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjunction with vocal coach for fall and winter quarters, and by jury examination in spring quarter. May be repeated for credit for maximum of 15 units: P/NP or letter grading.

161C. Advanced Vocal Coaching for Music Education Specialists. (3) Studio, 30 minutes; outside practice, five hours. Corequisite: course 161A. Limited to upper-division Music Education majors. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjunction with vocal coach for fall and winter quarters, and by jury examination in spring quarter. May be repeated for credit for maximum of 15 units: P/NP or letter grading.

163A-163V. Recital for Music Education Majors. (2 each) Studio, one hour; outside practice, six to eight hours. Limited to junior/senior Music Education majors. Preparation for and performance of recital comprising 30 minutes of music, including printed program. Recital is videotaped, archived, and evaluated by jury; written feedback is provided to student within two weeks of recital. Letter grading. 163A. Flute. 163B. Oboe. 163C. Clarinet. 163D. Saxophone. 163F. French Horn. 163G. Trumpet. 163H. Trombone. 163I. Tuba/Euphonium. 163J. Viola. 163K. Viola d’Amore. 163L. Viola. 163M. Cello. 163N. String Bass. 163O. Harp. 163P. Guitar. 163Q. Lute. 163R. Viola da Gamba. 163S. Piano. 163T. Organ. 163U. Harpsichord. 163V. Voice. Corequisite: course 161C.

166. Advanced Composition Studio. (2) Studio, one hour; outside study, five hours. Enforced prerequisites: course 161A. Limited to junior/senior music composition students. One-on-one composition lessons with assignments and compositions tailored to student’s area of achievement. Lessons address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility. May be repeated for credit for maximum of 15 units: P/NP or letter grading. 167A-167U. Capstone Instrumental Recital. (2 each) Studio, one hour; outside practice, six to eight hours. Limited to senior Music Performance majors. Planning and completion of senior capstone recital comprising 45 to 55 minutes of music, including printed program. Preparation for capstone recital, as well as individual and group lessons. Recital is videotaped, archived, and evaluated by jury; written feedback is provided to student within two weeks of on-site recital. Letter grading.

169. Capstone Composition Recital. (2) Studio, one hour; outside study, five hours. Enforced prerequisites: courses 124A or 124B, and 166 (at least 10 units). Limited to senior Music Composition majors. Planning and completion of senior capstone recital comprising at least 30 minutes of original music with program notes. Preparation for capstone recital, as well as composition lessons. Recital is videotaped, archived, and evaluated by jury; written feedback is provided to student within two weeks of recital. Letter grading.

C171. Selected Topics in Keyboard Literature. (2) (Formerly numbered C167.) Lecture, two hours. Enforced corequisites: courses 160S, 60T, 60U, 160S, 160T, 160U. In-depth study of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and actual performances by participants. May be repeated for credit. May be concurrently scheduled with course C271. P/NP or letter grading.

C175A. Brass. 175B. Guitar. 175C. Piano. 175D. Percussion. 175E. Strings. 175F. Woodwinds. 175G. String Bass. 175H. Marching and Varsity Bands. (2) (Formerly numbered 90M.) 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.

C186A. Piano/Keyboard Accompanying. (2) (Formerly numbered C90Q.) Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in accompaniment. 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 C484A. P/NP or letter grading.

C186B. Guitar Accompanying. (2) (Formerly numbered 90R.) 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 C484A. P/NP or letter grading.

C186C. Marching and Varsity Bands. (2) (Formerly numbered 185H.) 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. Concurrently scheduled with course C484A. P/NP or letter grading.

C186D. Symphony Orchestra. (2) (Formerly numbered C185H.) Activity, six hours. Preparation: audition. Group performance of symphonic orchestral literature. May be repeated for credit without limitation. May be concurrently scheduled with course C480E. P/NP or letter grading.

165G. Wind Ensemble. (2) (Formerly numbered C90G.) Activity, six hours. Preparation: audition. Group performance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C480G. P/NP or letter grading.

C186E. String Orchestra. (2) (Formerly numbered 185I.) Activity, six hours. Preparation: audition. Group performance of concert literature for string orchestra. May be repeated for credit without limitation. Concurrently scheduled with course C484C. P/NP or letter grading.

C186F. 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. Concurrently scheduled with courses C485A-C485G. P/NP or letter grading.

C186G. Jazz Ensemble. (2) (Formerly numbered C186G.) Activity, six hours. Preparation: audition. Group performance of stylistic repertoire. May be repeated for credit without limitation. Concurrently scheduled with course C484G. P/NP or letter grading.

C186H. Lecture/Concert. (2) (Formerly numbered 185H.) Activity, six hours. Preparation: audition. Group performance of masterworks in regularly scheduled meetings. May be repeated for credit without limitation. Concurrently scheduled with course C484H. P/NP or letter grading.

C187. Seminar: Special Topics in Music. (4) (Formerly numbered 187S.) Lecture, three hours; outside study, two hours. Exploration of topics in music through variety of approaches that may include projects, performances, readings, discussions, research papers, and oral presentations. Topics advanced in advance. May be repeated for credit. May be concurrently scheduled with C292. P/NP or letter grading.

C188A. 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.


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 supervised by a faculty member from community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work experiences. May be repeated for maximum of 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. Individualized 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.

Graduate Courses

M201. Repertory and Analysis. (2) Same as Musicology M201.) Seminar, two hours. Requisite or corequisite: Musicology 200A. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. Letter grading.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of analytical techniques and approaches to the performance of serious music in the context of individual stylistic and cultural traditions. Including phrase structure, harmonic rhythm and prolongation, small and large forms, theories of musical coherence, and understanding of styles. Letter grading.

203. Notation and Performance. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music students. Performance and transcription in a supervised setting in community agency or UCLA. Preparation: experience with Orff Schulwerk. Topics include editions, treatises, tempo indications, expressive notation, use and influence of recordings, composer-performer relationship, and nonstandard notation. Letter grading.

204. Music Bibliography for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music performance students. Survey of general bibliographic techniques in music, with emphasis on materials useful to professional musicians. Letter grading.

C209A. Oboe Reed Making. (1) Activity, one hour; outside study, two hours. Enrollment by consent of instructor. Introduction and overview of oboe reed making, including hands on training with tools and techniques. May be repeated for credit. Letter grading. May be concurrently scheduled with course C109A. S/U or letter grading.

C209B. 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 C109B. S/U or letter grading.

C218A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting techniques, band SU/gigue, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C118A. Letter grading.

C218B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C218A. Vocal and choral pedagogy, vocalizing and warm-up techniques, diction, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C118B. Letter grading.

C226. Electronic Music Composition. (4) Lecture, three hours; laboratory, three hours. Preparation: advanced electroacoustic music experience and some background in composition (art music), two years of music theory. Designed for graduate students. Limited enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and film scoring software (Logic), text collages (Pro-Tools), and final project. May be concurrently scheduled with course C176. SU or letter grading.


252. Seminar: Composition. (4) Seminar, three hours. Project compositions for various acoustic instrumental and vocal ensembles. Students expected to perform their compositions from sketches at piano or present notation files of work-in-progress with playback file, where appropriate. Performance of completed works in graduate composition concerts by UCLA student composers. Letter grading.

253. Seminar: Special Topics in Composition and Theory. (4) Seminar, three hours. Intensive exploration of specialized aspects of composition. May be repeated for credit. SU 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 the baroque era. Exploration of analytical techniques and methodologies in study 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.


256. Advanced Music Analysis: Post-Tonal Music. (4) Seminar, three hours. Discussion of theoretical approaches to and analysis of selected works of 20th or 21st century. Analysis of assigned pieces using various theoretical 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 and discussion of surrealistic effect when they merge, as in MTV, dream sequences, or montages. Study of three principal areas of film-making—preproduction, production (shooting), and postproduction. Emphasis on music for film and music dynamics and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture to be term project. Separate cues involve dialogue, melodic counterpoint, underscore, memory montage, and tension. Letter grading.

260B. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Focus on task of completing 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.


266. Graduate Composition Studio. (4) Studio, one hour arranged with instructor; outside study, 11 hours. Limited to graduate composition students. One-on-one composition lessons, with assignments and compositions. Emphasis on the processes of 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 limitation. S/U or letter grading.

270A-270G. Seminars: Music Education. (6 each) Seminars three hours; outside study, six hours. Limited to Musicology 200A. Advanced experience and accomplishment in serious music therapists who have had little or no previous exposure to music therapy. Letter grading.

C271. Selected Topics in Keyboard Literature. (2) Formerly numbered C267.) Lecture, two hours. Enroll by permission of course. Letter grading. May be concurrently scheduled with course 201D. In-depth study of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and actual performances by participants. May be repeated for credit. May be concurrently scheduled with course C171. S/U or letter grading.

CM282. Music Industry. (4) Same as Ethnomusi- cology 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 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 record- ings to MTV and popular music today. Concurrently scheduled with course CM288. 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.

C292. Seminar: Special Topics in Music. (4) Formerly numbered 292.) Seminar, three hours. Explora- tion 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 course C188. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion; five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists. This course provides an in-depth experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, philosophy, and teaching processes of this approach to music instruction for children. Offered in summer session. 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 330. Course 331A is requisite to 331B, which is requisite to 331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. Students who successfully complete each course are eligible for certification at that level through American Orff Schulwerk Association. S/U or letter grading. 331A. Level I (Beginning); 331B. Level II (Intermediate); 331C. Level III (Advanced).

341. Conducting for High School and College Band/Wind Ensemble Teachers. (2) Formerly num- bered S341.) Lecture, two and one half hours. Comprehensive view of current trends in band/wind en- semble programs, including nonverbal communica- tion, conducting, and rehearsal techniques. Study of new and recently published literature and discussions of administration of band/wind ensemble programs. May be repeated for credit without limitation. S/U or letter grading.

342. Contemporary Marching Band. (1) Formerly numbered S342.) Lecture, two hours. Innovative ap- proaches to marching band programs for high school and college teachers, including creative approaches to rehearsing and drill design/techniques. 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 instruction techniques for violin, viola, cello, and accompaniment of current pedagogical materials; and reading sessions of recently published music for string orchestra. May be repeated for credit without limitation. Offered in summer only. S/U or letter grade.

343L. Effective and Creative String Teaching Laboratory. (1) Laboratory, 12 hours. Exploration of string orchestra, ensemble, and chamber music literature appropriate for elementary, junior high, and high school students. Examination of this literature in reading and discussion sessions. May be repeated for credit without limitation. Offered in summer only. S/U or letter grade.

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 repertoire. Letter grading.

350A. Introduction to Computer-Assisted Instruction of Music. (2) Lecture, three hours; laboratory, two hours. Introduction to instructional uses of computers in music classroom, with emphasis on practical information about ways to intelligently purchase and implement microcomputers in schools. Courseware to be experienced and reviewed, jargon defined and illustrated, and practical hands-on experience obtained. May be repeated for credit without limitation. Offered in summer only. S/U or letter grade.

350B. Exploration of MIDI Computer Resources: Keyboards and Synthesizers. (2) Lecture, two hours; laboratory, three hours. Creative use of MIDI-based synthesizer for music instruction and 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 grade.

371. Marching Band in Secondary Education. (2) Lecture, two hours. Study of contemporary marching band and small group curriculum in secondary education, including current approaches, practices, and problems associated with marching bands, as well as historical perspective. S/U or letter grade.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to 4 hours: preparation: apprenticeship personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

401. New Music Forum. (2) Tutorial/laboratory. two hours. Preparation: one year of graduate study in music at UCLA. Interactive course in preparation and performance of premiere works especially composed for graduate performers or performed by graduate composer at UCLA. Letter grading.

450. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, two hours. Applied music course with focus on necessary skills for piano performance. Areas include sight playing, score reading, transposition, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C150. Letter grading.

455. Instrumental and Piano Duo Repertoire. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience for pianists and instrumentalists. Activities include weekly score preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, and/or chamber music. Related activities. Regular coaching with faculty members, weekly performance workshops, and rehearsals. Concurrently scheduled with course C155. Letter grading.

458A-458G. Advanced Vocal Repertoire, Diction, and Interpretation. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and vocalists. Activities include master class, classroom, and research. Weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, and/or chamber music. Related activities. Regular coaching with faculty members, weekly performance class, and rehearsals. May be repeated for maximum of 8 units. Concurrently scheduled with courses C158A-C158G. 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. Intensive study and preparation of musical literature in area of specialization, and flexibility. Letter grading.

460A. Flute. (Formerly numbered 461A.) 460B. Oboe. (Formerly numbered 461B.) 460C. Bassoon. (Formerly numbered 461D.) 460D. Clarinet. (Formerly numbered 461E.) 460E. Saxophone. (Formerly numbered 461F.) 460F. French Horn. (Formerly numbered 462B.) 460G. Trumpet. (Formerly numbered 462A.) 460H. Trombone. (Formerly numbered 462C.) 460I. Tuba/Euphonium. (Formerly numbered 462D.) 460J. Viola. (Formerly numbered 463J.) 460K. Violin. (Formerly numbered 463K.) 460L. Cello. (Formerly numbered 463L.) 460M. String Bass. (Formerly numbered 463M.) 460N. Harp. (Formerly numbered 463N.) 460O. Tuba/Euphonium. (Formerly numbered 463O.) 460P. Clari- net. (Formerly numbered 463P.) 460Q. French Horn. (Formerly numbered 463Q.) 460R. Viola da Gamba. (Formerly numbered 463R.) 460S. Piano. (Formerly numbered 463S.) 460T. Organ. (Formerly numbered 464B.) 460U. Harpsi- chord. (Formerly numbered 464C.) 460V. Fortepiano. (Formerly numbered 464D.)

461A. Graduate Voice Studio. (6) Formerly numbered C465B. Studio, one hour; performance laboratory/outside study, 17 hours. Corequisite: course 461B. Limited to graduate voice students. Voice techniques and health, including breath control, pitch accuracy, range, and flexibility. Letter grading.

461B. Graduate Voice Coaching. (1) Studio, one hour; outside practice, three hours. Corequisite: course 461A. Limited to graduate voice students. Emphasis on repertoire and improving performance. Grades are assigned only by studio instructor in conjunction with stu- dent’s vocal coach for fall and winter quarters and by jury examination in spring quarter. Letter grading.

466. Graduate Instruction in Performance: Jazz. (6) Studio, one hour; 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.

469. Instrumental Pedagogy. (4) Lecture, three hours; outside study and preparation, nine hours. Preparation: advanced proficiency on one musical instrument. Designed for graduate music students. Study of art of teaching musical instruments, including discussions of philosophy of teaching, learning process itself, and teaching of musical individualization. Individualized study of various considerations, such as physical/technical aspects and structures, and problems peculiar to teaching student’s primary instrument. Letter grading.

471. Vocal Pedagogy. (4) Lecture, three hours; dis- cussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of techniques for voice, including thorough investigation of vocal mechanism and its use, plus study of noted teachers of past and present. Further emphasis on practical teaching experience in class. Letter grading.

472. Master Class in Opera. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of opera literature. May be repeated for credit. S/U or letter grading.

475. Master Class in Conducting. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of musical literature in specialized field of conducting. May be repeated for credit. S/U or letter grading.

C480A. UCLA Chorale. (2) Formerly numbered C480B. Activity, four hours. Preparation: audition. Large mixed ensemble performing choral music of all periods appropriate for concert chorus. Ensemble may be repeated for credit without limitation. May be concurrently scheduled with course C185A. S/U or letter grading.

C480B. Chamber Singers. (2) Activity, four hours. Preparation: audition. Large mixed ensemble performing choral music of all periods. May be repeated for credit without limitation. May be concurrently scheduled with course C185B. S/U or letter grading.

C480C. Opera Workshop. (2) Activity, six hours. Preparation: audition. Rehearsal and performance of operatic and/or classical repertoire, as repertoire, stage movement, and foreign language dictation may be concurrently scheduled with course without limitation. May be concurrently scheduled with course C185C. S/U or letter grading.

C480D. Symphony Orchestra. (2) Formerly numbered C481B. Activity, four hours. Preparation: audition. Group performance of orchestral music literature. May be repeated for credit without limitation. May be concurrently scheduled with course C185D. S/U or letter grading.

C480E. Performance. (2) Activity, six hours. Prepar- ation: audition. Group performance of symphonic or- chestral literature, as well as orchestral accompani- ments for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C185E. S/U or letter grading.

C480G. Wind Ensemble. (2) Formerly numbered C482J. Activity, six hours. Preparation: audition. De- signed for MM and DMA students. Group perfor- mance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C90G. S/U or letter grading.

C484A. Piano/Keyboard Accompanying. (2) Formerly numbered C484B. Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in role of accompa- nier. Performance includes massed instrumentalists, re- hearsals, special studio performance projects, master classes, concerts, auditions, juries, and re- cites. May be repeated for credit without limitation. Concurrently scheduled with course C185A. S/U or letter grading.

C484B. Guitar Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumen- talists 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 re- cites. May be repeated for credit without limitation. Concurrently scheduled with course C185B. S/U or letter grading.

C485A-C485G. Chamber Ensembles. (1 each) Ac- tivity, one to two hours. Preparation: audition. Stu- dents 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. Limited to graduate students. Concurrently scheduled with courses C175A-C175G. S/U or letter grading.


495. Introductory Practicum for Teaching Apprentices in Music. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

496. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applications of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.


596A. Directed Individual Studies in Orchestration and Composition. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

596B. Directed Individual Studies in Music Education. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

596D. Directed Individual Studies in Performance Practices. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. S/U grading.

598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. Only 4 units may be applied toward degree requirements. May be repeated for credit. S/U or letter grading.

599. Guidance of PhD or DMA Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

Music Industry Lower-Division Courses

4. Reel Beatles: Understanding Beatles through Film and Media. (5) Lecture, three hours. One hour. Designed to tell story of the Beatles through visual media. Covers over 80s years of their lives, their journey, and enormous impact they had on world. Focus on how the Beatles were seen on television and in film. Examination of their most impactful filmed performances, movies they made as group, their promotional videos, their landmark broadcast moments, documentaries made about them while still they were still together, television interviews they did after group broke up, best documentaries made about them since 1970, and official multi-part documentary history of the Beatles they did together as told in Peter Jackson’s 2021 documentary. 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.

29. Docs that Rock, Docs that Matter: History and Practice of Music Documentary. (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, on 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 curricular 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 20th century. Includes Fifties and Sixties (or World War II generation) and those they have influenced. Practical industry guidance from current and noteworthy practitioners. Coverage of songwriting, arrangement and record production, music publishing, and songwriting; emphasis on 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.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

95. Introduction to Community or Corporate Internships in Music Industry. (4) Tutorial, eight hours. Entry-level courses or corporate internship for lower-division students who 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 their experience. P/NP grading.

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 residence at UCLA, and students admitted as first years must have completed a minimum of three terms of residency at UCLA. Students must be in good academic standing with an overall grade-point average of at least 2.0.

In addition, students who are not enrolled in a major within the Herb Alpert School of Music must complete at least one performance or ensemble course selected from Ethnomusicology 91A through 91Z, Global Jazz Studies 176A through 176G, Music M90T, C185A through C186C prior to application to the minor. The performance requirement may also be fulfilled through successful completion of Music Industry 111 or through an equivalent music industry course by petition.

The Minor
Required Courses (28 units): Music Industry 101, 195 (8 units), and five additional courses (20 units) selected from Ethnomusicology M25, 30, M35, C100, 105, M110B, 117, C155, C184, Music C176, Musicology 128, M137, 140, 164, 165, 177, 185, Music Industry 29, 55, 95, 102 through M182, 188, 195, 197.

Policies
A maximum of two lower-division courses may be counted toward the minor. Other UCLA upper-division courses may be applied to the minor 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.

With the exception of Music Industry 95 and 195 (mandatory P/NP grading), each minor course must be taken for a letter grade.
Upper-Division Courses

101. Seminar in Music Industry. (4) Seminar, four hours; outside study, eight hours. Required of Music Industry majors. Introduction to intellectual and theoretical frameworks that form Music Industry minor and that scholars of music and music industries have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, legal, global, and artistic terms, how music technologies of recording, reproduction, and consumption operate, and how basic music science from acoustics to brain biology to music perception affects how music is produced and heard. Letter grading.

102. Music Industry Fundamentals. (4) Seminar, three hours; outside study, nine hours. Introduction to basic concepts in the music industry, focusing on unique ways music works as industry in U.S. and abroad, how power has shifted but still is held in music oligopolies, and where career opportunities for music industry professionals will be in next five to 10 years for students. Letter grading.

M103. Music, Mind, and Brain. (4) (Formerly numbered 103.) (Same as Neuroscience M170.) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain mechanisms mediating music perception, performance, and cognition. Students' natural interest in music serves as springboard for learning basic concepts about theories of music and music perception while using tools to determine visual, auditory, and somatosensory correlates. Broad understanding of research topics in cognitive neuroscience; introduction to fundamental principles in neurophysiology, 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 areas in film, television, and new media. Legal relationships in entertainment business and basic business practices. Explain legal aspects of production of works in entertainment, committee of rights and rights through production and distribution. Letter grading.

104B. Legal and Business Aspects of Sound Recordings. (4) Seminar, three hours; outside study and research, nine hours. Exploration of legal and business aspects of production and distribution of sound recordings. More detailed practical focus on legal aspects of recording process itself, from initial assembly of material to final distribution and collection of royalties, with material covered also relevant to audio-visual sound recordings. Introductory presentation on contract, copyright, and trademark law as background to step-by-step process of securing agreements necessary for production and commercial distribution of recordings. Letter grading.

107A. Audio Technology for Musicians I. (4) (Studio, four hours; outside study, eight hours. Introduction to basic audioic principles, practical techniques, and working processes for equipment used in contemporary music production, including microphones, mixers, recorders, mixers, synthesizers, and recorders. Basic sound processing techniques, including equalization, compression, distortion, reverberation). Operating principal of 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 requisite: course 107A. Examination of selected technological elements in greater depth than in course 107A, while applying established concepts to broad range of creative scenarios and applications. Basic familiarity with standard audio workstation software in use in music industry and introduction to foundational theoretical concepts in audio engineering, psychoacoustics, mixing, mastering, and sound recording. Development of collaborative skills through in-class and assigned listening. Letter grading.

108. Founding and Sustaining Performing Arts Organizations. (4) Seminar, four hours. Examination of process of founding performing arts organizations, beginning with inspiration to do so, clarifying organizational mission, and mechanics of becoming nonprofit corporations; issues of funding, press relations, management, marketing, managing audience, mechanics, legal, and routine, of running arts businesses; establishing relationships with other organizations in field; issues of making and distributing recordings. Students create on paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. Letter grading.

110. Music Business Now. (4) Seminar, three hours. Hands-on introduction to business of music, with emphasis on marketing and media. Students work in teams to develop strategies for real-world artists. P/NP or letter grading.

111. Rock/Pop Studio Ensemble. (4) Studio, four hours; outside study, eight hours. Exploration of modern recording studio practices, including introduction to popular music styles, forms, and competencies through immersion in studio performance techniques. Students play in groups to develop ensemble, creative material, and produce recordings. P/NP or letter grading.

112A. Introduction to Songwriting. (4) (Formerly numbered 112.) Seminar, four hours; outside study, eight hours. Learning and employment of craft of songwriting. Examination, analysis, and implementation of song structure, lyric and melody writing, arranging, orchestration, and recording techniques. Evolution of songwriting in modern society since advent of phonograph player/radio; how songs and socioculturally affect and reflect one another; how this has informed songs and songwriters. Letter grading.

112B. Songwriter's Workshop. (4) Seminar, four hours; outside study, eight hours. Enrollment by consent of instructor. Workshop in contemporary songwriting practices for intermediate to advanced songwriter. Emphasis on collaboration, flexibility, and working within chains of command in professional settings. All genres and styles of music accommodated. Letter grading.


114. Concerts and Venues: Producing Special Events and Live Concerts. (4) Seminar, three hours. Behinds-scenes overview of how to produce successful live show, special event, or concert, from concept to execution, including master planning, venue production, concept and design, operations, seating, talent, security, and budget. Students acquire specialized knowledge and principles involved in staging any kind of event in music or the arts, including management, exhibitions, and art installations in venues worldwide. Includes guest speakers and site visits to major shows, venues, and production facilities. Letter grading.

115. The Art of Music Production. (4) Lecture, three hours; studio, two hours. Exploration of techniques, methods, and process of music production and larger issues in art of making music. Students learn how to foster artistic performance and emotion in music through variety of methods and tools, including artistic direction in studio and choices made in sound, arrangement, and application of technology. Letter grading.

117. Forensic Musicology. (4) Lecture, three hours; studio, two hours. Exploration of forensic musicology, methods, and process of music production and larger issues in art of making music. Students learn how to foster artistic performance and emotion in music through variety of methods and tools, including artistic direction in studio and choices made in sound, arrangement, and application of technology. Letter grading.

122. Internet Marketing and Branding for Musicians. (4) (Formerly numbered 102.) Seminar, four hours; outside study, eight hours. Requisites: courses 101, 102, 104A, or by permission of instructor. Study driven by project-based work of current online environments for musicians, organizations, and venues. Students dive into best practices of digital marketing around world, growing brand, finding target market online, and engaging with right communities of practice to build their own connections and online portfolio of collaborators. Letter grading.

124. Music Industry Entrepreneurship. (4) Seminar, four hours. Principles of entrepreneurship and fundamental business strategies approached through case studies and project-based group assignments. Students learn the basic steps involved in building and build out infrastructure for startups that focus on technology and innovation in music industry. Students are encouraged to make use of resources at MusicBiz, MEIEA, and startup.ucla.edu. Letter grading.


144. Music Journalism. (4) Seminar, four hours. Students learn core journalism writing and reporting techniques effectively, with an emphasis on critical listening, active voice writing, and apply those techniques to producing publishable works of journalism that report on music and music industry. Discussion and exploration of the industry landscape as journalists with probing curiosity, critical thinking, reporting, and analysis. Story ideas are pitched as group and written, reported, and edited as journalism team. Reading and critiquing of wide range of music journalism. Music journalists and musicians as guest speakers. No prior journalism experience necessary. Letter grading.

145A. Music Business in the West. (4) (Same as Ethnomusicology M174.) Lecture, four hours. Focus on history of western capitalism and how it has shaped music-making and listening to present time. P/NP or letter grading.

M181. Forensic Musicology. (4) (Formerly numbered 181.) Seminar, four hours; outside study, eight hours. Survey of critical issues and recent developments in field of forensic musicology—application of musical analysis to legal cases. Musicologists include professionals in music industry. Study of fundamental issues of music analysis and copyright law, review of key musical 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. Letter grading.

M182. Music Industry. (4) (Same as Ethnomusicology CM182, Music CM182, and Musicology CM186.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry practices on music evolution and the role of music industry professionals in the creation and distribution of music. Letter grading.

195. Community or Corporate Internships in Music Industry / 671. (4) Seminar, four hours; outside study, eight hours. Special topics in music industry for undergraduate students taught on experimental or temporary basis. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1-3) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course, designed to provide greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Hours content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Music Industry and Technology. (4) Tutorial, eight hours. Preference given to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point av-
Overview

The Department of Musicology curricula allow students to gain a broad understanding of the history and culture of music, as well as a practical introduction to issues and skills relevant to the music and entertainment industries. Courses cover virtually every period, style, and genre, including jazz and other popular musics. The department is aligned with the departments of Ethnomusicology and Music, and shares curriculum with the free-standing minor in Music Industry. It aspires to promote 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 and the music industry after students graduate.

Undergraduate Majors

Musicology BA

The BA in Musicology appeals to undergraduate students with musical backgrounds whose interests and principal career goals lie in areas other than professional performance. This undergraduate program prepares students for graduate programs in music and related fields and offers training within the broader context of the humanities.

Capstone Major

The Musicology major is a designated capstone major. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. Students are expected to conceive and execute a project that identifies and engages with a problem within a specialized topic, identify and analyze appropriate primary sources both textual and musical, and have a working knowledge of scholarly discourse relative to a specialized topic. While an extended essay is the default expectation for a completed project, students are encouraged to seek alternative formats, such as a lecture-recital, business or marketing plans, set of lesson plans, website, studio sound recording, or video/audio presentation. Students discuss and critique the work of their peers and present their work to other students and, if they choose, to the public as part of a student-organized event and conference.

Learning Outcomes

The Musicology major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, writing, and general knowledge of music and music history
- Identification and analysis of appropriate primary sources and musical scores
- Conception and execution of a project that proposes and supports an original argument about a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Entry to the Major

Admission

The Musicology program assumes that students have some musical background before entering UCLA. Although auditions are not required, prospective majors should be sufficiently competent on an instrument or in voice to participate in a performance group, as required by the program.

Transfer Students

Transfer applicants to the Musicology major with 90 or more units should complete one year of music theory and musicianship prior to admission to UCLA. Experience in music performance is strongly recommended. Transfer students are required to take Musicology 12W at UCLA.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Musicology 1, M6A, M6B, M6C, 12W, Music 20A, 20B, 20C, and 6 units total of performance organizations selected from Ethnomusicology 68A through 68O, 91A through 91Z, 168A through 168O, Global Jazz Studies 176A through 176H, Music C175A through C175G, C185A through 185H, Musicology CM80T, or Music Industry 111; one lower-division humanities elective (minimum of 4 units).

The Major

Required: Musicology 125A, 125B, 125C, 126, 127, 128 (in a given year, the department may designate individual Musicology seminars in the range 160-185, 188, or 191 as equivalent to 126 and 127); one additional upper-division ethnomusicology, global jazz studies, music, or music industry seminar elective course (minimum of 4 units); and the department capstone sequence, Musicology 187A, 187B, 187C.

Policies

Preparation for the Major

Enrollment in Musicology M6A, M6B, M6C and Music 20A, 20B, 20C requires taking the Music Theory Placement Examination administered by the Music Department during New Student Sessions or week 0. Students who do not pass the examination are required to take Music 3 prior to taking Music 20A.

The Major

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Music History and Industry BA

The BA in Music History and Industry is not a technical or business degree; it is a liberal arts degree in musicology whose subject is the music industry, combining the focus on music as an art form with practical training and experiential learning based in the music industry. It
includes courses that help students develop their skills in popular music creation and production as well as practical skills appropriate to the fiscal, entrepreneurial, and legal needs of the contemporary music world. A required internship in the Los Angeles music industry is a distinctive feature.

Capstone Major
The Music History and Industry major is a designated capstone major. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. Students are expected to conceive and execute a project that (a) identifies an issue, problem, or opportunity in the music industry and engages with it practically and critically, or (b) brings to fruition a substantial creative project in contemporary music with tangible results. While an extended essay is the default expectation for a completed project, students are encouraged to seek alternative formats, such as a lecture-recital, business or marketing plans, set of lesson plans, website, studio sound recording, or video/audio presentation. Students discuss and critique the work of their peers and present their work to other students and, if they choose, to the public as part of a student-organized live event and conference.

Learning Outcomes
The Music History and Industry major has the following learning outcomes:

- Development of basic musicianship and music literacy and fluency in music theory to accurately and efficiently communicate about musical concepts across multiple repertoires in popular music; basic competence with music technology
- Demonstrated general knowledge of the histories and repertories of Western European and US—American traditional, popular, and classical musics, as well as the influence of other world traditions
- Engagement with live ensemble performance in at least one area of music
- Working knowledge of scholarly and critical discourse relative to music history and the music industry
- Conception and execution of project that proposes and supports an original argument about a specialized topic or addresses a specific cultural question or presents and analyzes a case study of actual practice in the music industry
- Engagement with peers through presentation, discussion, and critique of their work
- Demonstrated basic understanding of how culture is theorized and interpreted, and the ability to place musical experiences and structures in rich cultural contexts, and to link music with social justice, diversity, and equity goals
- Demonstrated basic economic literacy and basic understanding of the economic and legal organization of creative industries
- Ability to find, evaluate, and apply high-quality data to support executive and entrepreneurial decisions
- Experiential learning in real-world corporate, creative, or entrepreneurial situations with written report

Entry to the Major
Admission
The Music History and Industry major assumes that students have some musical background before entering UCLA, although Western art music is not privileged. Auditions are not required, but prospective majors should be sufficiently competent on an instrument, in production, or in voice to participate in a performance group, as required by the program.

Transfer Students
Transfer applicants to the Music History and Industry major with 90 or more units should complete one year of music theory and musicianship 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.

Requirements
Preparation for the Major
Required: Music 20A, 20B, 20C; Musicology 1, M6A, M6B, M6C, 12W; and 4 units total of performance organizations selected from Ethnomusicology 88A through 88O, 91A through 91Z, 161A through 161Z, Global Jazz Studies 176A through 176H, Music C175A through 175G, C185A through 185H, Musicology CM90T, or Music Industry 111; one lower-division musicology or music industry elective (minimum of 4 units).

The Major
Required: Musicology 125A, 125B, 125C, 128, Music Industry 101, 102 or 112A or 112B, 195 or 195CE, two additional upper-division music industry elective courses; and the Music History and Industry capstone sequence, Musicology, 187A, 187B, 187C.

Policies
Preparation for the Major
Enrollment in Music 20A, 20B, 20C, and Musicology M6A, M6B, M6C requires taking the Music Theory Placement Examination administered by the Music Department or an equivalent assessment administered by the Musicology Department during New Student Sessions or week 0. Students who do not pass the examination are required to take Music 3 prior to taking Music 20A.

The Major
Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Undergraduate Minor
Musicology Minor
The Musicology minor provides undergraduates with an overview of music history and the study of music. Students may select from a wide variety of undergraduate courses that range through the history of European and American music.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better and complete the Musicology minor application. For more information, see the minor website.

The Minor
Required Lower-Division Courses (14 units): Musicology 1 and two lower-division musicology courses (minimum of 10 units total) with grades of C or better.

Required Upper-Division Courses (20 units): Two upper-division musicology seminar courses (minimum of 8 units total), and three additional upper-division ethnomusicology, global jazz studies, musicology, or music industry courses (minimum of 12 units total).

Policies
Enrollment in some courses may be limited; check with the department or instructor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Musicology MA, CPhil, PhD
The graduate program in Musicology offers courses leading to the MA and PhD degrees. It is designed to equip students to pursue careers not only in teaching but also in other areas that require bibliographical skills and training in research methodologies. The department offers teaching and research assistantships each year for qualified students.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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.** (Formerly numbered Music History 3.) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NC or letter grading.

5. **History of Rock and Roll.** (Formerly numbered Music History 5.) Lecture, four hours; discussion, one hour. Analysis of forms, practices, and meanings of rock and roll music, broadly conceived, from its origins to present. Emphasis on how this music has reflected and influenced changes in sexual, racial, and class identities and attitudes. Credit for both courses 5 and 185 not allowed. Letter grading.

MDA-M6B-M6C. Introduction to Musicianship. (2-2-2) (Formerly numbered Music History MDA-M6B-M6C.) (Same as Ethnomusicology M6A-M6B-M6C and Music M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C- or better to proceed to next course in sequence. Introduction to musicianship through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, interval, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

7. **Film and Music.** (Formerly numbered Music History 7.) Lecture, four hours; discussion, one hour. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual image. Credit for both courses 7 and 177 not allowed. P/NC grading.

8. **History of Electronic Dance Music.** (Formerly numbered Music History 8.) Lecture, four hours; discussion, one hour. Survey of groove-based electrified dance music from its origins in 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 impact states of musical consciousness; promise (versus reality of) political and spiritual transformation; electronic dance music as new art music. P/NC or letter grading.

9. **American Popular Song.** (Formerly numbered Music History 15W) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 56. Emphasis on learning specific skills, incorporating technical description, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.

13. **Punk: Music, History, Subculture.** (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 musical antecedents in 1960s, rise of punk in 1970s, and tracing of its expressive trajectories to present day. P/NC or letter grading.

19. **Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current interest, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NC grading.


35. **Introduction to Opera.** (Formerly numbered Music History 35.) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florence, 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, dramaturgy, plot, stagings, dramatics of opera, and musical style, with focus on listening appreciation of music of opera within rich context of its compelling history. P/NC or letter grading.

60. **American Musical.** (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 180 not allowed. P/NC or letter grading.

61. **Music in Los Angeles.** (Formerly numbered Music History 61.) Lecture, four hours; discussion, one hour. Exploration of music in Los Angeles. Focus on how Los Angeles adds to the broad palette of music genres to greater emphasis on music in 20th century, with special focus on Los Angeles music in 20th century and postwar history of Japanese American community. Credit for both courses 61 and 162 not allowed. P/NC or letter grading.

62. **Mozart.** (Formerly numbered Music History 62.) Lecture, four hours; discussion, one hour. Designed for students who do not read music. Life, works, and mythology of Wolfgang Amadeus Mozart, in context of his age and our own. Credit for both courses 62 and 162 not allowed. P/NC or letter grading.

63. **Bach.** (Formerly numbered Music History 63.) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Johann Sebastian Bach. Credit for both courses 63 and 163 not allowed. P/NC or letter grading.

64. **Motown and Soul: African American Popular Music of 1960s.** (Formerly numbered Music History 64.) Lecture, four hours; discussion, one hour. Survey of developments in post-World War II African American popular music, with special attention to musical styles, genres, contemporaries, and other rhythm and blues, funk, and soul music centers of production. Relationships between musical forms and cultural issues of 1960s, including Civil Rights Movement, counterculture, black nationalism, capitalism, and separatism, and larger dimensions of African American experience as mediated through groove-based music. Credit for both courses 64 and 164 not allowed. P/NC or letter grading.

65. **Blues in American Music.** (Formerly numbered Music History 65.) Lecture, four hours; discussion, one hour. History of blues, both as specific genre and as range of techniques and approaches that have been at center of American music and culture, from 19th-century roots to present. Exploration of commonly accepted blues mainstream exemplified by figures like Bessie Smith, Robert Johnson, Muddy Waters, and Little Richard. Credit for both courses 65 and 165 not allowed. P/NC or letter grading.

66. **Getting Medieval.** (Formerly numbered Music History 66.) Lecture, four hours; discussion, one hour. Exploration of ideology of medievalism in music and culture from Wagner to video games. Music covered includes film scores, opera, Gregorian chant, early music revival, folk songs, progressive rock, and Goth. Credit for both courses 66 and 166 not allowed. Letter grading.

M67. **Popular Jewish and Israeli Music.** (Formerly numbered Music History M67.) (Same as Jewish Studies M67.) Lecture, four hours; discussion, one hour. History and analysis of Jewish music is divided. With history of several thousand years and series of developments in modernity, music in Jewish life covers varieties of styles found in many contexts. Exploration of music of Jews within local communities, with focus on music of Jews in America and Israel. Examination of music in Israel, with focus on songs of land of Israel, Israeli rock, and Muzika Mizrachit (Middle Eastern popular music). P/NC or letter grading.

68. **Beethoven.** (Formerly numbered Music History 68.) Lecture, four hours; discussion, one hour. Examination of life and music of Beethoven within social and historical context of 19th century. Credit for both courses 68 and 168 not allowed. P/NC or letter grading.

69. **Music and Politics.** (Formerly numbered Music History 69.) Lecture, four hours; discussion, one hour. Exploration and demonstration of various ways in which music is informed by and informs politics. From individual performances to mass demonstrations, music is recognizable as a political act and tool that is not simply representative, but also constitutive, meaning that music creates (not simply reflects) politics. Examination of development and use of music by social movements, political parties, and nations, and critical listening practices to better hear world around us and sounds that compose its futures. P/NC or letter grading.

70. **Beethoven.** (Formerly numbered Music History 70.) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Ludwig van Beethoven. Credit for both courses 70 and 170 not allowed. P/NC or letter grading.

71. **Listening.** (Formerly numbered Music History 71.) Lecture, four hours; discussion, one hour. Introduction to humanistic study of music and appreciation of its role in knowledge, perception, and aesthetic experience, history, politics, and ethics of listening. Hearing is shared perceptive faculty among able-bodied people, but listening practices are shaped by history, society, and culture. Hearing people listen differently depending on when, where, and how they live, as well as who they are as individuals. P/NC or letter grading.

72. **Sacred Music.** (Formerly numbered Music History 72.) Lecture, four hours; discussion, one hour. Study of forms and liturgies of Western church music. Credit for both courses 72 and 172 not allowed. P/NC or letter grading.

M73. **Music and Religion in Popular Culture.** (Formerly numbered Music History M73.) (Same as Ethnomusicology M73.) Lecture, four hours; discussion, one hour. Survey of popular music in religious traditions across the world in Jewish denominations, including Orthodox, Reform, and Conservative, and Christian contemporary music, from evangelical to jazz. Credit for both courses M73 and M173 not allowed. P/NC or letter grading.

75. **History of Jazz.** (Formerly numbered Music History 75.) Lecture, four hours; discussion, one hour. History and analysis of jazz. Focus on late 19th-century forerunners to present, with emphasis on social meanings of musical practices. Letter grading.

79. **Dancehall, Rap, Reggaepton: Beats, Rhythms, and Routes in African Diaspora.** (Formerly numbered Music History 79.) Lecture, four hours; discussion, one hour. Survey of history and analysis of various music from late 20th to 21st century. Focus on music and dancehall, reggaeton and dancehall. Credit for both courses 79 and 179 not allowed. P/NC or letter grading.

M80. **Jewish American Experience through Music.** (Formerly numbered Studies M80.) Lecture, three hours; discussion, one hour. In synagogue and on stage, and from LP recordings to YouTube, Jews in America have varied musical experi-
ences. Music of synagogue, celebrations at home, in depth through supplemental readings, papers, or 89. Honors Seminars. (1) Seminar, three hours. Lim M103. Creating Musical Community. (4) (Same as M103, Global Jazz Studies M103, and Music M103) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and student study in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notion of social contract that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex music 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 may include introduction to disability studies; 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 in instructor change. P/NP or letter grading.

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.

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 contract required. Honors content noted on transcript. Letter grading.

CM107T. Early Music Ensemble. (Formerly numbered Music History M107T) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early instruments may be used at instructor’s discretion. May be repeated for credit without limit. May be concurrently scheduled with course C1490T. P/NP or letter grading.

Music and Internet. (Formerly numbered Music History 105) Lecture, four hours; discussion, one hour. Survey of changes undergone by music in digital environment. As music becomes increasingly pervasive—found everywhere, yet living nowhere special—what social, economic, political, and artistic forces are determining centers of attention? Examination of formative force of Internet on sounds themselves. What kinds of noises develop logically within digital context, 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.

M82. Music and Holocaust: Individual Experience. (Same as Jewish Studies M82) Lecture, three hours; discussion, one hour. Roles of music during 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 also of cultural representations of Holocaust, and role of music in society’s collective memory. Letter grading.

Upper-Division Courses

101. 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 go about establishing, editing, publishing, and preparing musical texts. Exposure to kinds of activities, philosophies, and styles of scholarship that continue to shape musicology. P/NP or letter grading.

103A. History of Opera. (5) (Formerly numbered Music History 103A) Lecture, four hours; discussion, one hour. Survey of the history of opera. Credit for both courses 103A and 162 not allowed. P/NP or letter grading.

103B. History of the Romantic Era. (5) (Formerly numbered Music History 103B) Lecture, four hours; discussion, one hour. Enforced corequisite: attendance. May be repeated for credit with different instructor. Credit for both courses 103A and 163 not allowed. P/NP or letter grading.

103C. History of the 20th Century. (5) (Formerly numbered Music History 103C) Seminar, two hours. Enforced corequisite: attendance. May be repeated for credit with different instructor. Credit for both courses 103A and 163 not allowed. P/NP or letter grading.

105. Issues and Methods in Musicology. (4) (Formerly numbered Music History 105) Seminar, three hours. Enforced corequisite: attendance. May be repeated for credit with different instructor. Credit for both courses 103A and 162 not allowed. P/NP or letter grading.

106. Selected Topics in American Musical. (5) (Formerly numbered Music History 106) Seminar, two hours. Preparation: ability to read music and engage in melodic, harmonic, and formal analysis. Enforced corequisite: attendance. May be repeated for credit with different instructor. Credit for both courses 103A and 163 not allowed. Letter grading.

107. Popular Culture. (5) (Formerly numbered Music History 107) Seminar, two hours. Enforced corequisite: attendance. May be repeated for credit with different instructor. Credit for both courses 103A and 163 not allowed. Letter grading.


M136. Music and Gender. (5) (Formerly numbered Music History M136) Seminar, four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, body, and sexuality by and for women and men. Focus on productions of women to Western art and popular music; methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) (Formerly numbered Music History M137) Lecture, four hours; discussion, one hour. Survey of English-language popular music in 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

140. 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 manipulations on recordings, under movies, behind ads, and in semiotic fabric of everyday life. Letter grading.

160. Selected Topics in American Musical. (5) (Formerly numbered Music History 160) Seminar, 90 minutes. Enforced corequisite: attendance, but not enrollment, in course 60. Intensive discussion of selected pieces by Mozart and of certain topics important to fuller understanding of his contributions to musical culture of Enlightenment, and relevance to contemporary culture. Credit for both courses 62 and 162 not allowed. Letter grading.

162. Selected Topics in Music of Mozart. (5) (Formerly numbered Music History 162) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 60. Limited to Musicology majors and minors. Examination of Bach’s music in greater depth. Credit for both courses 62 and 163 not allowed. Letter grading.

163. Bach: Study of Selected Works. (5) (Formerly numbered Music History 163) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 60. Enormous repertoire, refine it, and bring it to concert performance. Students critically engage musical cultures make music, and how music makes cultures. Letter grading.

165. Blues and Individual Expression. (5) (Formerly numbered Music History 165) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 60. Limited to Musicology majors and minors. Examination of Bach’s music in greater depth. Credit for both courses 62 and 163 not allowed. Letter grading.

166. Selected Topics in African American Popular Music of 1960s. (5) (Formerly numbered Music History 166) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 60. Limited to Musicology majors and minors. In-depth look at specific blues artists, with special attention to issues of authenticity, biography, personal and group identity, commercialism,
musical styles and evolving history of American music and culture in 20th century. Credit for both courses 65 and 165 not allowed. Letter grading.

166. Medievalism and Music History, (5) (Formerly numbered Music History 166.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 65 and 165 not allowed. Letter grading.

167. Selected Topics on Beatles. (5) (Formerly numbered Music History 168.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 165 not allowed. Credit for both courses 65 and 168 not allowed. Letter grading.

170. Beethoven: Study of Selected Works. (5) (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.


177. Selected Topics in Film and Music. (Formerly numbered Music History 177.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 773 lecture. Exploration of connections of music, religion, and popular culture among American Christians. Credit for both courses 173 and M173 not allowed. Letter grading.

181. Forensic Musicology, (4) (Same as Music Industry M181.) 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 and experts in forensic musicology. Credit for both courses 181 and M173 seminar. Letter grading.

184A-184B-184C. Capstone Seminar in Music History and Industry I, II, III (2-4-3) Seminar, three hours. Limited to senior Music History and Industry majors. Preparation, creation, and presentation of senior capstone project. Letter grading.


185. Selected Topics in Rock and Roll. (5) (Formerly numbered Music History 185.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 155 lecture. Intensive discussion in seminar setting of selected topics in rock and roll. Credit for both courses 5 and 165 not allowed. Letter grading.

186. Music Industry, (4) (Formerly numbered Music History CM186.) Seminar, four hours. Discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Enforced corequisite: attendance, but not enrollment, in course 5 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 recording to MTV and popular music today. Concurrently scheduled with course CM288. Letter grading.


188. Special Courses in Music History. (4) (Formerly numbered Music History 188.) Lecture, four hours. Special topics in music history for undergraduate students. Taught on temporary basis. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior or 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. (2) Tutorial, to be arranged. Enforced corequisite: course 188A. 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: course 188B. Limited to junior or 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 188C. 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.

188E. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188D. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth 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 Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual contract with 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 Music History. (2) (Formerly numbered Music History 190.) Seminar, two hours. Designed for senior Musicology majors. Directed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to complete their capstone projects. Repeated with their peers, as well as for collateral outside courses. Students expected to present their work and to discuss and help critique work of others at similar stage of development. They may elect to showcase their work before academic publics (e.g., through organizing one conference or one special publication). Letter grading.

191A-191F. Junior Variable Topics Research Seminars: History of Music. (4 each) (Formerly numbered Music History 191A-191F.) Seminar, three hours. Limited to Musicology majors. Directed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to complete their capstone projects. Repeated with their peers, as well as for collateral outside courses. Students expected to present their work and to discuss and help critique work of others at similar stage of development. They may elect to showcase their work before academic publics (e.g., through organizing one conference or one special publication). Letter grading.

191A. Middle Ages; 191B. Renaissance; 191C. Baroque; 191D. Classic; 191E. Romantic; 191F. 20th Century.

191G. Other Topics; 191P. Performance Practice. Practical issues in performance practice, specific questions of how musical performance intersects with cultural and political performance, and/or general issues of theory of performance in Western music; proportion of each determined by syllabus committee.

193C. Music History Journal Club Seminar for Majors. (2) 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 practice of journal reviewing, research methodologies and development of bibliographical control. Normally taken in junior year. P/NP grading.

193D. Music History Practice/Analysis Seminars for Majors. (2) (Formerly numbered Music History 193D.) Seminar, two hours. Recommended requisite: course 193C. Limited to Musicology majors. Introduction to how music historians engage with issues of musical performance, and of how historical concerns, theoretical issues, and methodologies can inform music as practice, especially as it is performed, recorded, listened to, danced to, and otherwise consumed. Continued attention to issues of bibliographical control. Normally taken in senior year. P/NP grading.

195. Community Internships in Music. (2 to 4) (Formerly numbered Music History 195.) Seminar, three hours. Required of University Internship in supervised setting in community agency or business related to music or music history. Students meet on regular basis with instructor and produce reports of period internships and final project. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

197. Advanced Individually Directed Study. (5) Seminar, five hours. Preparation: minimum of four upper-division music history courses with departmental grade-point average of 3.5 or better and completion of minimum of four quarter of senior year. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and research, maximum 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, two hours. Preparation: completion of minimum of four upper-division music history courses with departmental grade-point average of 3.5 or better and completion of minimum of four quarter of senior year. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and research, maximum of subject matter required. 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 Musicology majors. One- to two-semester independent research study project under supervision of appropriate faculty member, culminating in department honors thesis of approximately 25 pages. May be repeated for credit. 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 special focus on musicology debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and ar- chival research and documentation. In relation 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 social theory, materialist theories of culture, postcolo-
260. Mapping Sonic Urban Geography of Los Angeles in 1940s. (4) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methods and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodological undertakings for undertaking ethnoarchaeological or anthroacoustic 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 and history of Western music; analytical reports 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 musico- logical perspectives, outlining of procedural aspects of copyright case, and defining of working relationships 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, seventeen 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 undergraduate level. May be repeated for credit. S/U grading.

296. Research Topics in Musicology. (2 to 4) Seminar, two hours. Preparation: consultation with instructor. May be repeated for credit. S/U grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: appointment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

C490T. Early Music Ensemble. (4) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1650. Early instruments may be used at instructor’s discretion. May be repeated for credit without limitation. May be concurrently scheduled with course CM090T. 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.
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.

Naval 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. Nonscholarship students may apply to participate as members of the midshipmen 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 22 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 sophomore year. These students have the opportunity to compete for scholarships. If they do not win a scholarship, or choose not to compete for one, they must compete for advanced standing prior to their junior year. All College Program students receive uniforms, naval science textbooks, and, once selected for advanced standing, monthly subsistence pay in their junior and senior years.

Marine Corps Option

Highly motivated NROTC students may request designation as Marine Corps option students and may also pursue any UCLA academic degree. The final summer training, and a requirement to be commissioned as an officer in the Marine Corps, involves intensive Marine training at Officer Candidate School in Quantico, Virginia. Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.

Naval Science

Lower-Division Courses

2. Naval Science Laboratory. (No credit) Laboratory, to be arranged. Mandatory for and limited to Naval Science ROTC midshipmen. Provides midshipmen with general military training and practical command and staff leadership experiences through classroom instruction and performance of various tasks and interactive processes within framework of organized midshipmen-run military unit, with oversight by active-duty military staff. As integral part of naval science curriculum, provides professional experiences designed to develop leadership potential and orientation for active duty. No grading.

1A. Introduction to Naval Science. (3) Lecture, three hours. Introduction to organization of Naval Service, various components of Navy, career opportunities, shipboard damage control, fire fighting, Naval and Marine Corps operations, and some customs and traditions of Naval Service. Letter grading.

1B. Naval Ship Systems I. (4) Lecture, four hours. Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability, and buoyancy. P/NP or letter grading.

10A. Advanced Standing. (1 to 4) Lecture, 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.

2A. 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.


102B. Naval Leadership and Management. (4) Lecture, four hours. Examination of current and classical leadership and management theories, with emphasis on their application to junior military officer’s role as a leader/manager. Topics include managerial functions, performance appraisal, motivation theories, group dynamics, leadership theories, and communication. P/NP or letter grading.

102C. Leadership and Ethics. (4) Lecture, four hours. Recommended requisite for Naval Science ROTC midshipmen; course 102B. Capstone and second of two core leadership courses that provide academic foundation of NROTC leadership development. Integration of intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, professional ethics, Uniform Code of Military Justice, and Navy regulations. Provides midshipmen with basic understanding of major moral traditions, including relativism, utilitarianism, Kantian ethics, natural law theory, divine command theory, and virtue ethics. Letter grading.

103. Evolution of Warfare. (4) Study of evolution of warfare, including historical and comparative consideration of influence that leadership, political, economic, and sociological developments 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
310-825-4165
Los Angeles, CA 90095-1511

Near Eastern Languages and Cultures

Department e-mail
Kathlyn (Kara) M. Cooney, PhD, Chair
Faculty Roster

Professors
Khaled M. Abou El Fadl, JD, MA, PhD (Omar and Azmeralda Alfi 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
Michael D. Cooperson, PhD
S. Peter Cowe, PhD (Narekatsi Professor of Armenian Studies)
Undergraduate Study
Undergraduate majors may be taken in Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. In each of these fields students must meet the requisites and take the courses prescribed. Their adviser assists in selecting a plan of study developed around their interests. Students may combine their major with one in another department (double major) to enhance their educational opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career and in consultation with program advisers in both majors.

Graduate Study
Master of Arts (MA) and Doctor of Philosophy (PhD) programs are offered in Ancient Near Eastern Civilizations, Arabic, Armenian, Hebrew, Iranian, Islamic Studies, Semitics, and Turkic.

Career Prospects
Courses in the department prepare students for careers in government, foreign trade, teaching abroad, journalism abroad, archaeology, and further academic work involving the area.

Undergraduate Majors
Ancient Near East and Egyptology BA
Study Abroad
Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated 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.

Learning Outcomes
The Ancient Near East and Egyptology major has the following learning outcomes:
- Demonstrated mastery of the ancient Near East and its history
- Demonstrated skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures

Entry to the Major
Transfer Students
Transfer applicants to the Ancient Near East and Egyptology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course on Mesopotamia, Egypt, Near Eastern archaeology, or Middle Eastern cultures.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major

The Major
Students must complete 10 courses as follows:
- Required Core Courses: One course selected from four of the following five areas (total of four courses):
  - History: Ancient Near East M103A through M104D, M110A, M110B, M110C, or Jewish Studies M182A.
- Required Elective Courses: Any six courses (no more than three may be from Anthropology) selected from the categories above or from Ancient Near East 121A, 121B, 121C, C123A, C123B, 124, 125A, M125B, M125C, 175, C177, M179, Anthropology 110, CM110Q, C111, 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
Preparation for the Major
Each course must be taken for a letter grade.

The Major
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.

Arabic BA
Learning Outcomes
The Arabic major has the following 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
Entry to the Major
Transfer Students
Transfer applicants to the Arabic major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Jewish Studies M10, one course selected from Ancient Near East M10W, M12W, M17W, 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.

The Major
Required: Eleven courses, including (1) three selected from Hebrew M10A, M10B, M10C, M10D, M10E, M10F, M10G, M10H, M10I, M10J, M10K, M10L, M10M, M10N, M10O, M10P, M10Q, M10R, M10S, M10T, M10U, M10V, M10W, M10X, M10Y, M10Z, or equivalent, and (2) one elective course from the department.

Policies
The Major
No more than two upper-division 4-unit independent study or directed research courses (197, 199) may be applied toward the major. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

Iranian Studies BA
Students majoring in Iranian Studies may combine the major with specialization in other fields to enhance their career opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career.

Learning Outcomes
The Iranian Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of Persian language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Persian and analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Entry to the Major
Transfer Students
Transfer applicants to the Iranian Studies major with 90 or more units must complete the following introductory 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.

Requirements
Preparation for the Major
Required: Jewish Studies M10, one course selected from Ancient Near East M10W, M12W, 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.

The Major
Required: Eleven courses, including (1) three selected from Hebrew M10A, M10B, M10C, M10D, M10E, M10F, M10G, M10H, M10I, M10J, M10K, M10L, M10M, M10N, M10O, M10P, M10Q, M10R, M10S, M10T, M10U, M10V, M10W, M10X, M10Y, M10Z, or equivalent, and (2) one elective course from the department.

Policies
The Major
Students are encouraged to take a research tutorial within Jewish Studies 197 or 199. A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

Middle Eastern Studies BA
Study Abroad
Students are encouraged to spend time abroad 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.

Requirements
Preparation for the Major
Required: Jewish Studies M10, one course selected from Ancient Near East M10W, M12W, 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.

The Major
Required: Eleven courses, including (1) three selected from Hebrew M10A, M10B, M10C, M10D, M10E, M10F, M10G, M10H, M10I, M10J, M10K, M10L, M10M, M10N, M10O, M10P, M10Q, M10R, M10S, M10T, M10U, M10V, M10W, M10X, M10Y, M10Z, or equivalent, and (2) one elective course from the department.

Policies
The Major
Students are encouraged to take a research tutorial within Jewish Studies 197 or 199. A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

Middle Eastern Studies BA
Study Abroad
Students are encouraged to spend time abroad 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.

Requirements
Preparation for the Major
Required: Jewish Studies M10, one course selected from Ancient Near East M10W, M12W, 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.

The Major
Required: Eleven courses, including (1) three selected from Hebrew M10A, M10B, M10C, M10D, M10E, M10F, M10G, M10H, M10I, M10J, M10K, M10L, M10M, M10N, M10O, M10P, M10Q, M10R, M10S, M10T, M10U, M10V, M10W, M10X, M10Y, M10Z, or equivalent, and (2) one elective course from the department.
Required Core Courses:
Students must complete 11 courses as follows:

The Major
Near East 10W, 12W, 14W, 15, 15W, 15W, M60, His

Required:
Preparation for the Major
Transfer Students
Entry to the Major

Literature:
(Azeri) 116A, 116B, 116C.
(Uzbek) 112A, 112B, 112C, Turkic Languages
(Turkish) 102A, 102B, 102C, Turkic Languages
(Akkadian) 140A, 140B, 141, Turkic Languages

Language:
M184A, M184B, M184C, M184D.
103B, 103C, 161A, 161B, 161C, Semitics (Aramaic) 110, 110B, Semitics (Syriac) 115, Semitics
(Akkadian) 140A, 140B, 141, Turkic Languages
(Turkish) 102A, 102B, 102C, Turkic Languages
(Uzbek) 112A, 112B, 112C, Turkic Languages
(Azeri) 116A, 116B, 116C.

Literature: Ancient Near East 150A, 150B, Arabi
M110, C141, M148, Hebrew 120, 125, 130, 135, 135, C140, 170, Jewish Studies M113, 143, M150A, 150B, M151A, 151B, 162, 170, 175, M187, Iranian 120, 130, 131, 132, 140, 141, 150A, 150B.

Religion: Ancient Near East M130, M135, M170, M185D, History M106, Iranian 170, Islami
M115, 130, 151, Jewish Studies M155, 170, Study of Religion 120.


Policies
The Major
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.

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


Religion: Ancient Near East M130, M135, M170, M185D, History M106, Iranian 170, Islami
M115, 130, 151, Jewish Studies M155, 170, Study of Religion 120.


Policies
The Major
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.

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. Courses recommended as electives for the major in Arabic (Anthropology M166Q, Art History 119A, 119B, C120, Comparative Literature 100, History 105A, 105B, 105C, M106, 108B, 111A, 111B, 111C, 130, Political Science 132A, M132B, 157, 165) may be applied.

Policies
With consent of the undergraduate adviser, two of the five courses may be taken outside the department. Other courses may be applied with consent of the adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Armenian Studies Minor
The Armenian 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 Armenian culture.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.
The Minor

Required Upper-Division Courses (35 units):

Policies

Course 199 may not be applied. With consent of the undergraduate advisor, two of the five courses may be taken outside the department. Ordinarily, the following courses may be applied: History 107A through 107E, Indo-European Studies M150.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Hebrew and Jewish Studies Minor

Admission

To enter the Hebrew and Jewish Studies minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall.

Required Upper-Division Courses (20 units):
- Hebrew 1A, 1B, 1C, or 2C, or equivalent.

Required Upper-Division Courses (20 to 25 units):
- Five courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With consent of the undergraduate advisor and based on course content, two of the five courses may be taken outside the department.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Israel Studies Minor

The Israel Studies minor is designed for students interested in adding a particular focus on Israel to their major. Comprised of coursework that serves to create a broad introductory foundation of familiarity with Israeli history, society, politics, and culture, the minor is appropriate for students from a wide range of majors including Art, Comparative Literature, Film and Television, History, Jewish Studies, Middle Eastern Studies, Political Science, and Study of Religion.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, completed Middle Eastern Studies M50CW or equivalent, and file a petition in 378 Kaplan Hall, 310-825-4165.

The Minor


Policies

A maximum of 4 units of special studies courses (197, 198, 199) approved by the advisor 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

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 Lower-Division Courses (9 to 10 units):

Required Upper-Division Courses (20 units): A total of five courses, including at least three from one of the following four areas:

Literature: Ancient Near East 150A, 150B, Arabic M110, C141, M148, Hebrew 120, 125, 130,
Lower-Division Courses

10W. Jerusalem: Holy City. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3. Not open for credit to students with course credit for 12W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of mythic Jerusalem through event and experience. Satisfies Writing II requirement. Letter grading.

12W. Jerusalem: Holy City. (5) Seminar, four hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 10W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architectural monuments, and iconography in relation to written sources. Study of creation of mythic Jerusalem through event and experience. Development of advanced writing skills and critical thinking. Satisfies Writing II requirement. Letter grading.

14W. Medicine, Magic, and Science in Ancient Times. (5) Lecture; three hours; discussion, one hour. Requisite: English Composition 3. Overview of history of medicine and sciences, focusing especially on Ancient Near East, China, and Mesoamerica. Satisfies Writing II requirement. Letter grading.

15. Women and Power in Ancient World. (5) Lecture, four hours; discussion, one hour. Requisite: English Composition 3. Not open for credit to students with credit for course 15W. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used archency 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 pretending to be men so that their femininity 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 successions were in disarray. Women were sometimes only effective leaders left in drawn-out battles against imperial aggression. No women were able to hold power through their bloodlines alone. Women’s power was compromised from outset. Examination of root causes and results of this political inequality. P/NP or letter grading.

15W. Women and Power in Ancient World. (5) Lecture; four hours; discussion, one hour. Requisite: English Composition 3. Not open for credit to students with credit for course 15W. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others denied their femininity in dress and manner, effectively androgynizing themselves or pretending to be men so that their femininity 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 successions were in disarray. No women were able to hold power through their bloodlines alone. Women’s power was compromised from outset. Examination of root causes and results of this political inequality. P/NP or letter grading.

Near Eastern Languages and Cultures MA, CPhl, PhD

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.

Ancient Near East

See Semitics for Akkadian, Aramaic, Phoenician, Syriac, and Ugaritic courses.

20. Egyptian Hieroglyphs. (5) Lecture, five hours. Basic introduction to language and hieroglyphic script of ancient Egypt. Devoted to learning principles of hieroglyphic writing and Egyptian grammar, deciphering standard inscriptions, and using hieroglyphic text editing software to type and compose texts. Students acquire ability to recognize and translate hieroglyphic inscriptions on common museum objects. P/NP or letter grading.

M50A. First Civilizations. (5) (Same as Middle Eastern Studies M50A) Lecture; three hours; discussion, one hour. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Middle Eastern Studies M50B and Religion M50B) Lecture; three hours; discussion, one hour. Examination of three of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Comparison 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 Alexander. (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 Achaemenid Persia, first world empire of antiquity, which was ended by Alexander the Great, whose campaigns were as transformative as they were violent. Alexander connected ancient Mediterranean and Near East as never before, ushering in new era and forever changing cultural landscape of ancient world. Focus on themes of ancient kingship and political ideology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous states. Emphasis on diversity critical to understanding political nuances of ancient world. Students gain broad knowledge of Achaemenid and Macedonian empires, facility with ancient primary sources, and development of analytical skills central to discipline of history, allowing conceptualizing issues of diversity and othering in ancient world. P/NP or letter grading.

M60W. Achaemenid Civilization and Empire of Alexander. (5) (Same as History M60W and Iranian M60W) Lecture; three hours; discussion, one hour. Requisite: English Composition 3. Overview of history of medicine and sciences, focusing especially on Ancient Near East, China, and Mesoamerica. Satisfies Writing II requirement. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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 credit noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in required courses. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) (Same as Art History M110A.) Lecture, 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 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 architecture, sculpture, 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 Thebes. (4) (Same as History M110C.) Lecture, three hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile’s western banks through formal processions, chronological changes in function and form of Theban temples through time, and statuary program of individual temples. P/NP or letter grading.

M103A-M103B. History of Ancient Egypt. (4-4) (Same as History M103A-M103B.) Lecture, three hours; discussion, one hour (when scheduled). Course M103A is not requisite to M103B. Designed for juniors/seniors. Social and political structures of ancient Egypt will be examined through an understanding of religious beliefs as they shaped the development of Egyptian civilization. P/NP or letter grading. M103A. Chronological discussion of Prehistory, Old and Middle Kingdom. M103B. New Kingdom and Late period until 332 BC.

M104A. History of Ancient Mesopotamia and Syria. (4) (Same as History M104A.) Lecture, three hours. Three hours, course history, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Fertile Crescent, including Iran, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

M104B. Sumerians. (4) (Same as History M104B.) Lecture, three hours. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennium BCE, with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.

M104C. Babylonians. (4) (Same as History M104C.) Lecture, three hours. Overview of Babylonia and cultural history of region from 3rd to 1st 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 History M104D.) Lecture, three hours. 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 Zargos to Egypt. P/NP or letter grading.

M105. Archaeology of Egypt and Sudan. (4) (Same as Anthropology M115.) Lecture, two hours; laboratory, three hours. Ancient Egypt is well known for its 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 gained. Through discussion of particular archaeological theories, regions, or sites; examination of methods of prehistoric and historic archeology and how archaeological information contributes to understanding of social, political, and religious history. Background provided for development of regional models of ancient history, 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 directed and presented in time map. P/NP or letter grading.


M120A-120B-120C. Elementary Ancient Egyptian. (5–5–5) Lecture, five hours. Course 120A is requisite to 120B, which is requisite to 120C. P/NP or letter grading. M120A. Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian. Basic rules of Middle Egyptian syntax, with focus on nominal, adjectival, and adverbial sentences. M120B. Verbal system and syntax of verbal sentences of Middle Egyptian. M120C. Reading of authentic Egyptian texts to deepen knowledge of Egyptian grammar and to acquire familiarity with aims and methods of philology, study of ancient texts.

M121A-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. P/NP or letter grading.

122. Elementary Ancient Egyptian: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Egyptian to qualify for more advanced courses. Intensive course equivalent to courses 120A, 120B, and 120C. Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian, with emphasis on 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 was used in Egypt until the 6th century CE. Concurrently scheduled with courses C223A-C223B. P/NP or letter grading. C123A. Devoted to learning Coptic alphabet, grammar, and vocabulary (Sahidic dialect), with particular emphasis on historical linguistics. C123B. Requisite: course C123A. Introduction to variety of Coptic textual genres, from hagiographies to homilies, magical spells, private letters, legal contracts, and literary texts in dialects other than Sahidic (Bohairic, Fayumic, Akhmimic). C124. Middle Egyptian Technical Literature. (4) Lecture, three hours. Requisite: course 121C. Reading of Middle Egyptian texts in hieroglyphic transcription. Medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

125A. Digital Cultural Mapping Core Course A: Place, Time, and Digital World. (4) Lecture, three hours; discussion, one hour. Introduction to how emerging digital mapping technologies like geographic information systems (GIS), virtual globes, and time-slice display are used to represent complex data in digital cultural mapping projects. Analysis of different forms of virtual 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 spatial representation of place to learn how mapping has always been connected with societal structures, politics, economics, and culture because it is a powerful means of inquiry by structuring world and organizing knowledge about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercubes, and Timelines. (4) (Same as Architecture and Urban Design M125C.) Laboratory, three hours; fieldwork, one hour. Enforced requisite: course 125A. Hands-on laboratory-based investigation of emerging digital mapping technologies, in particular complex data, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural phenomena, applying skills learned in course to a small cultural dataset of the holy land in the medieval world. Map-based assessment of digital cultural mapping technologies, 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. Offered in summer only. P/NP or letter grading.

M125C. Digital Cultural Mapping Core Course C: 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 High-Geographic Information Systems (GIS) research project in humanities or social sciences using skills learned in courses 125A and M125B. Gathering and input of datasets from real-world sources, creation and visual representations of data, through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Final oral presentation required that details student work and provides critical analysis of source material and technological/methodological issues inherent to type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

M130. Ancient Egyptian Religion. (5) (Same as Religion M132.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs, practices, and socioreligious aspect of ancient Egypt to study Egyptian religion as coherent system of thought and sphere of action that once served as meaningful and relevant framework for understanding physical reality and human life for inhabitants of Nile Valley. General principles as well as developments through time (circa 3000 BC to 300 CE). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M135. Religion in Ancient Israel. (4) (Same as Religion M135.) Lecture, three hours. Survey of various ancient Israelite religious beliefs and practices, their origin, and development, with special attention to diversity of religious practice in ancient Israel and Canaan during 1st millennium BCE. P/NP or letter grading.
C165. 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 C256. P/N or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as History 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 Mesopotamia and Syria and with reference to ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magics, wisdom, and moral conduct. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N 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 Ancient Near East. (2 to 4) Individual, 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. Individual contract required. P/N or letter grading.

199. Directed Research or Senior Project in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/N 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 will hone knowledge of Middle Egyptian grammar and become familiar with philological methods in study of Egyptian literature. S/U or letter grading.

220. Seminar: Ancient Egypt. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

221A-221B. Demotic. (4–4) Lecture, three hours. Requisite: course 121C. Course 221A is requisite to 221B. Introduction to Demotic grammar and orthography. Requisite: 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.

221A. Introduction to Demotic grammar and orthography. Reading of texts from various genres. May be repeated for credit. S/U or letter grading.

221B. Introduction to Coptic, final phase of Egyptian language, with particular emphasis on historical linguistics. Students hone their knowledge of Middle Egyptian dialect, with help of specialists. S/U or letter grading.

222A. Devoted to learning Coptic alphabets and vocabulary (Sahidic dialect), written and oral language. Theoretical understanding of depositional procedures to be used in recovery of embedded cultural materials. Study of issues covered in 599. PhD Dissertation Research and Preparation. (4) Lecture, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students with prior knowledge of Arabic. Introduction to research on Egyptian texts dating to Old Kingdom (circa 2800 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phasology of Old Egyptian texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

CM259. Archaeology of Iran. (4) (Same as Indiana 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.

CM269. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM210Q.) Lecture, three hours. Basic understanding of methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have em bedded them in their students under graduate and graduate models. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological and biochemical techniques), and virtual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM169. S/U or letter grading.

227. Old Egyptian. (4) Seminar, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students with prior knowledge of Arabic. Introduction to research on Egyptian texts dating to Old Kingdom (circa 2800 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phasology of Old Egyptian texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

228. Selected Topics in Near Eastern Archaeology. (4–4) Lecture, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students with prior knowledge of Arabic. Introduction to research on Egyptian texts dating to Old Kingdom (circa 2800 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phasology of Old Egyptian texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

230. Seminar: Ancient Syria/Palestine. (4) Seminar, three hours. Examination of selected topics on political, social, and economic history of ancient Near East. Exploration of how historical, social, and political contexts shape and influenced interpretation and use of biblical texts. May be repeated for credit. S/U or letter grading.

240A-240B-240C. Seminars: Sumerian Language and Literature. (4–4–4) Seminar, two hours. Readings of texts from various Sumerian periods and literary genres; selected problems in linguistic or stylistic analysis and literary history. S/U or letter grading.

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 Near Eastern archaeological finds in museum collections. Students work with objects in Heeramanek Collection of Los Angeles County Museum of Art. S/U or letter grading.

263. Seminar: Egyptian Monuments. (4) Seminar, two hours. Selected monuments and sites in Egypt, including Delta, Nile Valley, desert sites, wadis, oases, and border regions, with particular emphasis on temple decoration of temples and tombs, statuary and monuments, settlement and use history, text translation of appropriate documents, including stela, monumental inscriptions, or other ephemeral or numeric texts. May be repeated. S/U or letter grading.

264. Egyptian Museum Collections. (4) Seminar, two hours; research group meeting, one hour. Ancient Egyptian minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course CM101A. S/U or letter grading.

265. Depositional History and Stratigraphic Analysis. (4) (Same as Anthropology M265.) Lecture, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students with prior knowledge of Arabic. Introduction to research on Egyptian texts dating to Old Kingdom (circa 2800 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phasology of Old Egyptian texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

266. Egyptian Archaeology. (4) Seminar, three hours. Enforced requisites: courses 120A, 120B, 120C, or one year of introductory Middle Egyptian. Advanced reading class in Old Egyptian, earliest of five Egyptian language phases, to prepare students with prior knowledge of Arabic. Introduction to research on Egyptian texts dating to Old Kingdom (circa 2800 to 2100 BCE). Through close reading of texts in original language and original format, students learn grammar, orthography, and phasology of Old Egyptian texts as well as tools and methods of epigraphy. Focus on tomb biographies, royal edicts, and Pyramid Texts. Letter grading.

599. PhD Dissertation Research and Preparation. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

600. Egyptian Monuments. (4) Seminar, two hours. Selected monuments and sites in Egypt, including Delta, Nile Valley, desert sites, wadis, oases, and border regions, with particular emphasis on temple decoration of temples and tombs, statuary and monuments, settlement and use history, text translation of appropriate documents, including stela, monumental inscriptions, or other ephemeral or numeric texts. May be repeated. 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. 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 who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. P/NP or letter grading.

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. Advanced formal Arabic, including grammar, composition, and reading of classical and modern texts. P/NP or letter grading.

102A-102B-102C. 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 reading of classical and modern texts. P/NP or letter grading.

105. Introduction to Qur'anic and Islamic Arabic. (4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, or introduction to Arabic. Texts (traditions of Prophet Muhammad), and early Islamic literature (biographies of Prophet and historical narratives). P/NP or letter grading.

M106. Qur'an. (4) (Same as Religion M108.) Lecture, three hours. Introduction to Qur'an, its early history, 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.

M107. 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 growth and development of selected Muslim communities; 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 through in-class assignments and discussion. Letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 20 hours. Enforced requisite: course 1C. Not open to students who have learned, from whatever source, enough Arabic to qualify for
M110. One Thousand and One Nights/Al Layla Wa-Layla. (Same as Comparative Literature M110.) Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, One Thousand and One Nights is most well-known work of Arabic literature in West. Examination of cycle of tales more commonly known as Arabian Nights, including history of its translation, contemporary oral performances, and study of its emergence as vernacular language in relation to classical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Bartho, South). Lecture, P/NP or letter grading.

111A-111B-111C. Elementary Spoken Egyptian Arabic. (4–4–4) Lecture, three hours. Enforced requisites: course 1c or 8. Course 111A is enforced requisite to 111B, which is enforced requisite to 111C. Not suitable for heritage speakers. Introduction to spoken Arabic dialect of Egypt. Training in listening, speaking, and reading. P/NP or letter grading.

111S. Summer Intensive Elementary Egyptian Arabic. (4) Lecture, three hours. Knowledge of Arabic not required. Introduction to heritage speakers to introduction to spoken Arabic dialect of Egypt. Training in listening, speaking, and reading. P/NP or letter grading.

112A-112B-112C. Advanced Spoken Egyptian Arabic. (4–4–4) Lecture, three hours. Study of Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/NP or letter grading.

115. Studies in Arabic Dialectic. (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 Iraq, Kuwait, or any other Arab country. May be repeated for credit. P/NP 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 contexts. Dialogue about topics and other conversational exercises. P/NP or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from Qur'an, Tafsir, Hadith, Fiqh. May be repeated for credit. Letter grading.

123. Oral 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/NP or letter grading.

130. Classical Arabic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from premodern literary texts and cultural and historical context. May be repeated for credit. Letter grading.


140. Readings in Modern Standard Arabic. (4) Lecture, four hours. Requisite: course 103A, or consent of instructor. Development of reading, speaking, and writing skills in modern Standard Arabic, as well as cultural knowledge, through film screenings, discussions, written compositions, verbal presentations, and reading authentic literary texts from across Arabic-speaking countries. 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, variously organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures, mixing thematic and formal analyses of literary 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 231C. Lecture, P/NP or 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, analyzing. May be repeated for credit. P/NP or letter grading.

148. Contemporary Arabic Film and Song. (4) Same as Comparative Literature M148C. Seminar, three hours. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultures of commitment (litizam), with possible focus on specific genres such as realist/neorealism 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 examined in relation not only to national cinemas, national music industries, and iconic singers but also of video clip, satellite TV, star academy, and reality shows—all products of pan- and trans-Arab mass media.

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 Arabic, 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.

151. Modern Arabic Literature in English. (4) (Same as Comparative Literature M167.) Lecture, three hours. Lecture delivered in English; literature major minors. 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 transition; oral and written traditions of recipients, exorcism, translation, and marketing. Genres may include prison narratives; novel of terror; memoirs by women and/or by refugees and exiles; 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 or one country such as Algeria, Maghreb or one country such as Algeria, Iraq, Lebanon, or Egypt. May also be organized around Arab literatures written in one specific language, namely English, Arabic, or French. Letter grading.

155. 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 Arabic and Western and Arabic and Jewish cultures. Topic of course is to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

171. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M168Q and History M108C.) Lecture, three hours. Designed for juniors/seniors. 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; colonization; gender and legal rights, changing representations of Islam, and religions in region’s public spaces. P/NP or letter grading.

177. Variable Topics. (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 in both its modern standard and dialect forms. Introduction to linguistic analysis of Arabic phonology, morphology, and syntax and to linguists’ approaches to specific problems posed by Arabic grammar and dialectology. Letter grading.

181. Translating Arabic. (4) Seminar, three hours. Preparation: advanced proficiency in English and Arabic or other second language. Course is for three years of Arabic instruction or equivalent. Open to both native and nonnative speakers of English and Arabic. Training of students in methodology of translation from Arabic into English, with focus on producing and analyzing English versions of Arabic texts from variety of fields. Close reading and written translation of Arabic texts, with review of linguistic and cultural difficulties that arise in course of translation. Topics may include classical Arabic literature (religion, historiography), modern writing (literature, media), and spoken Arabic (television, radio), based on student interest. Letter grading.

186FL. Special Studies: Readings in Arabic. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and additional work in Arabic to enrich and augment work assigned in main course, including reading, writing, and other exercises. 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 courses. Focus 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 reading and critical texts and making use of film, video-clip, satellite TV, star academy, and reality shows—all products of transnational and pan-Arab mass media.

191. Directed Research or Senior Project in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

220. Seminar: Islamic Texts. (4) Seminar, three hours. Major Islamic thinkers and their works from classical period to modern times. Coverage of doctrines and historical narratives of various groups of thought, as Ahl al-sunna wa’l-jama’a, Shi’a, Mu’tazila, and Sufis. May be organized around one author and his works, multiple authors and their works, or specific 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.

221. Seminar: Islamic Texts. (4) (Same as Hebrew M221.) Seminar, three hours. Requisite: course 102C, Hebrew 102C. Reading of Judeo-Arabic texts by Ma’monides (medieval religion, medicine, philosophy) and more recent Judeo-Arabic dialects of Iraq and Egypt; discussion of cultural and religious 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 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 Judeo-Arabic texts by Ma’monides (medieval religion, medicine, philosophy) and more recent Judeo-Arabic dialects of Iraq and Egypt; discussion of cultural and religious deviations from norms of classical Arabic. S/U or letter grading.

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their reliability or sources or their view of history 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 geographical writings distributed over numerous disciplines and various aspects of geography, such as Surat al-Arabi. Reading of how Arab geographers, using maps, topography, and travel accounts. May be repeated for credit. S/U or letter grading.


250. Seminar: Premodern Arabic Literature. (4) Seminar, three hours. Readings in Arabic texts from variety of periods and genres, along with appropriate secondary literature. Contemporary issues include pre-Islamic poetry and oratory, Qur’an, Umayyad and Abbasid poetry and literary prose, Hadith and Fiqh, historiography, biography, geography, medicine, mathematics, theology, asceticism, and mysticism. May be repeated for maximum of 24 units. S/U or letter grading.

251. Seminar: Modern Arabic Literature. (4) Seminar, three hours; discussion, one hour. Requisite: course C214. Selected topics in modern and contemporary Arabic prose and poetry. May be repeated for credit. Letter grading.

M255. Literatures and Cultures of Maghreb. (4) (Same as Comparative Literature M255T, Seminar) Three hours. Limited to students who have studied Maghreb. Exploration of traditionally diverse literatures of Maghreb in their multiple and competing contexts of language and gender politics, religious and cultural formations. Pan-Arabism and postcolonial nationhood, Third-Worldism and economic development, modernity and globalization, immigration and citizenship, soccer industry and R&B music, mass media and Star Academy Maghreb, and more. Reading in literatures in English and in English translations from different Maghrebian languages (particularly Arabic and French) in conjunction with theories of language and linguistic pluralism, cultural translation, and received and emerging discourses of language. 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 104C. Introduction to Ar- abic paleography and how to prepare editions of manuscriptic works with attention to the minutiae of language use, psychological restraints (i.e., effervescence) of cultural and artistic production. Examination of the role of language in Armenian identity construction. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

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.

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 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. 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

101A-101B-101C. Elementary Modern Western Ar- menian. (5-5-5) Lecture, five hours. Course 101A is recommended requisite to 101B, which is recom- mended requisite to 101C. Students with knowledge of Armenian should contact instructor to determine appropriate enrollment level. Armenian grammar, con- versation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Western Ar- menian. (5-5-5) Lecture, five hours. Re- quisite: course 1C. Students with knowl- edge of Eastern or Western Armenian (from elemen- tary or high school) should contact instructor to deter- mine appropriate enrollment level. Reading of selected texts, composition, and conversation. Each course may be taken independently for credit. P/NP or letter grading.

103A-103B-103C. Advanced Modern Western Ar- menian. (4-4-4) Lecture, four hours. Recommended requisite: course 102C. Course 103A is recommended requisite to 103B, which is recommended requisite to 103C. 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. Exploration of advanced reading material and areas of competency: fluency, literacy, accuracy, and profi- ciency. Use of language to engage literary themes and cultural issues of historical and contemporary signifi- cance. P/NP or letter grading.

104A-104B-104C. Elementary Modern Eastern Ar- menian. (5-5-5) Lecture, five hours. Course 104A is recommended requisite to 104B, which is recom- mended requisite to 104C. Students with knowledge of Western Armenian should contact instructor to de- termine appropriate enrollment level. Designed for stu- dents with little or no prior knowledge of Eastern Ar- menian, offering diploma of Republic of Armenia. Introduc- tion to basic expression of language, cultural issues through readings from critical essays, edi- torials, short stories, and poems written since World War II and film showings. Emphasis on enhancing stu- dents’ self-expression orally and in written form. Each course may be taken independently for credit. Letter grading.

110. History of Armenian Language. (4) Lecture, three hours. Requisite: course 105C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate en- rollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Discussion of the contemporary status of Armenian and cul- tural issues through readings from critical essays, editorials, short stories, and poems written since World War II and film showings. Emphasis on enhancing stu- dents’ self-expression orally and in written form. Each course may be taken independently for credit. Letter grading.

105A-105B-105C. Intermediate Modern Eastern Ar- menian. (5-5-5) Lecture, five hours. Recommended requisite course 4C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appro- priate enrollment level. Continuation of introduction to Ar- menian grammar, with greater attention to readings. Readings from short stories and simple newspaper articles and film viewing on video. Emphasis on improving stu- dents’ self-expression in idiom, both orally and in written form. Each course may be taken independently for credit. 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 en- rollment level. Designed for students with advanced speaking fluency and reading abilities in Armenian. Discussion of the contemporary status of Armenian and cul- tural issues through readings from critical essays, editorials, short stories, and poems written since World War II and film showings. Emphasis on enhancing stu- dents’ self-expression orally and in written form. Each course may be taken independently for credit. Letter grading.

120. Language in Diaspora: Armenian as a Heri- tage Language. (4) Lecture, three hours. Comprehen- sive examination of status of Armenian as heritage language in diasporic contexts. Introduction to dias- pora, particularly in Armenian context, and to heritage languages and heritage learners. Review of develop- ment of modern standards of Armenian (Eastern and Western) and special circumstances for each variety in order to position Armenian on sociolinguistic map of heritage languages. Exploration of issues such as lin- guistic features of heritage speakers, patterns and do- mains of language use, psychological restraints (i.e., anxiety, fear, etc.) connected with speaking heritage languages, language attitudes with ideologies, and role of language in Armenian identity construction. P/NP or letter grading.

130. Armenian Civilization under Bagratid Dynasty, 884 to 1064. (4, 5) Lecture, four hours. Interdisciplinary investigation of interface between sociopolitical and economic factors in creation of works of art, literature,
art, architecture, etc.) and social function these works performed in this important period of Armenian history. Letter grading.

131. Armenian Civilization in Cilician Period, 1080 to 1375. (4) Lecture, four hours. Interdisciplinary investigation of rise and fall of unique form of Armenian polity established outside homeland and examination of degree to which its social structure and cultural and aesthetic norms were impacted by those of West (Byzantium, Western Europe) and East (Crusader states, Seljuqs, Mamluks, Mongols). Letter grading.

M134. Introduction to Armenian Music. (4) Same as Ethnomusicology M134 and Music M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not essential. Introduction to history, tradition, and scope of music of Armenia. Focus on number of different genres and approaches, and interactions between music and culture, society, and history. P/NP or letter grading.


C151. 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 thought and expressive forms. Concurrently scheduled with course C251. P/NP or letter grading.

C152. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, three hours. Readings of selected plays from 1668 to 1992 from two main genres of tragedy, comedy, and serious drama and featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C252. Letter grading.

C153. 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 aesthetic impetus in these differing interpretations. Concurrently scheduled with course C253. P/NP or letter grading.

C155. Issues in Armenian American Literature and Culture. (4) Lecture, four hours. Preparation: reading knowledge of Modern and Western Armenian. Theoretically informed exploration of some of most salient questions related to Armenian American community as reflected in its literature and other cultural artifacts. Course 155 is not open to students who have completed courses 1A, 1B, and 1C. Not open to students who have completed courses 1A, 1B, and 1C. Not open to students who have completed courses 1A, 1B, and 1C.


C166. Armenian Film and Culture. (5) Lecture, six hours. Requisites: course 1C or 4C. Overview of development of Armenian cinematography from first talkie to present, with focus on work of most seminal directors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C252. Letter grading.


C170. Armenian Poetry, 1880 to 1930. (4) Lecture, three hours. Requisites: course 1C or 4C. Examination of process established outside of range and variety of poetic expression that developed in new literary formats and genres of what became standard modern Eastern and Western Armenian language in second half of 19th century. Special attention to crafting of central practitioners’ individual voice, with particular consideration to poetics and aesthetics, creativity and innovation under impact of modernism, and employment of poetic structure as medium for expression of deeper philosophical values. All texts read in original language. P/NP or letter grading.

C252. 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 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.

C253. 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 C253. P/NP or letter grading.


C266. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of development of Armenian cinematography from first talkie to present, with focus on work of most seminal directors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C266. S/U or letter grading.

C596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U grading.


Lower-Division Courses

1A-1B. 1C. Elementary Hebrew. (5–5–5) Lecture, four hours; laboratory, one hour. Enforced preparation: Hebrew placement test. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to students who have completed courses 1A, 1B, and 1C.

C267. Intermediate Classical Armenian. (4–4–4) Lecture, three hours. Requisite: course 230C. Intensive review of grammar and reading 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 C255. Letter grading.


C269. Intermediate Classical Arme

nian. (4–4–4) Lecture, three hours. Requisite: course 230C. Intensive review of grammar and reading of selected prose and poetic texts. Each course may be taken independently for credit. Letter grading.

C270A-270B. 270C. Elementary 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 Philhellenic School of 6th to 8th century and related works up to 19th century. Each course may be taken independently for credit. Letter grading.

C270A-270B. 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.

C271. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition has developed, with focus on its transformation in course of last two centuries as result of exposure to European thought and expressive forms. Concurrently scheduled with course C251. S/U or letter grading.

C272. 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 featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C252. Letter grading.

C273. 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 C253. P/NP or letter grading.


C276. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of development of Armenian cinematography from first talkie to present, with focus on work of most seminal directors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C266. S/U or letter grading.

C596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Hebrew
Upper-Division Courses

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.

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 knowledge of grammar; reading of texts from modern literature. P/NP or letter grading.

103A-103B-103C. Advanced Hebrew. (4-4-4) Lecture, five hours. Enforced requisites: courses 102A, 102B, and 102C, or Hebrew placement test. Students with prior knowledge of Hebrew who did not take courses 102A, 102B, and 102C should contact instructor to determine appropriate enrollment level. Not open to native speakers. Amplification of knowledge of grammar; reading of texts from modern literature. P/NP or letter grading.


110C. Readings in Biblical Hebrew. (4) Lecture, three hours. Requisites: courses 110A, 110B. Continuation of course 110B. Reading of prose texts from Hebrew Bible, particularly from Former Prophets (Joshua-Kings). Introduction to certain aspects of historical grammar of biblical Hebrew. Reading and translation of variety of different historical periods. Hebrew language, including texts from Archic, Standard, and Late periods. Increased understanding of Hebrew verbal system, including different verbal patterns, their morphology, and syntactic function in biblical Hebrew prose. P/NP or letter 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 imagination and various Israeli sociocultural issues to familiarize students with different aspects of Israeli daily life and popular culture, while teaching them multiple speech acts in both formal and informal contexts, thus enriching their Hebrew vocabulary and its retention. P/NP or letter grading.

111B-111C. Conversational Hebrew. (3-3) Lecture, two hours; laboratory, one hour. Requisites: courses 111A. Course 111B is to 111C. Vocabulary used in daily life, different speech acts in both formal and informal contexts, and various Israeli sociocultural issues using different kinds of media, such as video, Internet, and newspaper. P/NP or letter grading.

112. Readings in Modern Scholarly Hebrew. (2) Seminar, two hours. Requisite: course 102C. In-depth reading and discussion of selected scholarly articles in modern Hebrew disciplines: Bible-studies, Jewish history and folklore, sociology, and literary criticism. Development of student proficiency in vocabulary, terminology, and ideas in these fields while enhancing comprehension of complex syntactical structures in Hebrew. May be repeated for credit. P/NP or letter grading.

M13. Contemporary Israeli Short Stories/Novellas and Films in English. (5) Same as Jewish Studies M13. Lecture, two hours. Exploration of Israeli short stories and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to understand complex personalities of modern Israeli society. Recyclig and reexamination of Israeli condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outlines of Israeli identity and subvert its underpinning formative myths. They simultaneously display loss of faith in representative dimension of language, including ability of texts to penetrate to its hidden meaning. Using periphery discourses, these texts strive to change modernist aesthetic and power paradigm. P/NP or letter grading.


1140. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent courses in Hebrew Study. Survey of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

170. Dead Sea Scrolls. (4) Lecture, three hours. Requisite: course 110C. Readings from Dead Sea Scrolls, with focus on grammar, paleography, and 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. Descriptive and comparative study of Hebrew grammar: phonology and morphology. Topics include development of Hebrew language from biblical times to present day, its relation to Arabic and other Semitic languages, methods of language expansion in Israeli 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.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to upper-division lecture course. Individual study with 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.

197. Individual Studies in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Hebrew. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical literature, methods of language expansion in Israeli Hebrew, tradition of pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic). P/NP or letter grading.

230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) Same as Arabic M231. Lecture, three hours. Requisites: course 102C, Arabic 102C. Reading of rabbinic works by Maimonides (medieval medicine, religion, 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.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Designed for students who have basic language skills and capacities necessary for reading Biblical Hebrew or Rabbinic Hebrew. Reading, analysis, and interpretation of Hebrew literature composed during Second Temple period. Relevant sources include Chronicles, Ezra-Nehemiah, Ecclesiastes, Ben Sira, Daniel, Dead Sea Scrolls, and other documents from Judean desert, and various apocrypha and pseudepigrapha. Special attention to historical development of Hebrew language and literature in relation to both earlier biblical sources, styles, grammar, and syntax and to subsequent Rabbinic writings. Course builds following skills: reading unpointed texts, mastering distinctive elements of vocabulary, idioms, and syntax of Second Temple Hebrew, and analyzing relationships between biblical and postbiblical sources. May be repeated for credit. S/U or letter grading.


248. Hebrew Prose Fiction. (4) Studies in specific problems and trends in Hebrew poetry of the last two centuries. May be repeated for credit.

249. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grade.


Iranian Lower-Division Courses

1A1B-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.

8. Elementary Persian: Intensive. (15) Lecture, 10 hours. Discussion, 10 hours. Not open to students who have learned, from whatever source, enough Per-
55. Gender and Sexuality in Arts and Literatures of Iran and Middle East. (5) Lecture, three hours; discussion and individual study with lecture course instructor. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit with consent of instructor. P/NP or letter grading.

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 taken independently for credit. P/NP or letter grading.

103A. Introduction to Classical Persian Poetry. 103B. Introduction to Classical Persian Prose. 103C. Introduction to Contemporary Persian Poetry and Prose. 

104. Philosophical Texts. (4) Lecture, three hours. Readings in English. Introduction to wide selection of philosophical texts in translation. Identification of major philosophical themes in ontology, epistemology, psychology, ethics, and political philosophy. May be repeated for credit with consent of instructor. P/NP or letter grading.

M105A. Bahá’í Faith in Iran: Historical and Sociological Survey. (4) (Same as Religion M105A.) Lecture, three hours. Readings in English. Rise and development of Báb and Bahá’í religions in context of 19th and 20th-century Iran. Focus on personality of Bahá’u’lláh and ‘Abdu’l-Bahá. May be taken independently for credit. P/NP or letter grading.

M105B. Bahá’í Scriptures and Thought. (4) (Same as Religion M105B.) Lecture, three hours. Analysis of major writings by Báb, Bahá’u’lláh, and ‘Abdu’l-Bahá. Emphasis on textual and historical contexts. 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 Religion M105C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran and its unique contributions to political 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.

M110A-M110B-M110C. Iranian Civilization. (4–4–4) (Same as Ancient Near East M110A-M110B-M110C and History M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled); P/NP or letter grading. Each course may be taken independently for credit. P/NP or letter grading.

Graduate Courses

M210. Topics in Ancient Iranian History. (4) (Same as Ancient Near East M208 and History M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsacid, and Sasanian history. May be repeated for credit. S/U or letter grading.


221. Rumi, Mystic Poet of Islam. (4) Seminar, three hours. Requisite: course 161C. Course requires concurrent reading of Rumi's works and Rumi in context of Sufism and poetic creativity. May be repeated twice for credit.

M222A-M222B. Vedic. (4-4) (Same as Indo-European Studies 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.


231A-231B-231C. Advanced Middle Iranian. (4-4-4) Lecture, three hours. Requisite: course 161C. Course is concurrent with 231B. Concurrent course requisite to 231C. Further studies in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian, Khotanese, Bachtari). 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 Achaemenid times. Concurrently scheduled with course CM163. 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.


Islamic Studies

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Introduction to Islam. (5) (Formerly numbered M110.) (Same as Religion M20.) Lecture, three hours; discussion, one hour. Case studies and practices 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.

M27A-M27B. Introduction to Islamic Art and Architecture. (4-4) (Same as Classics M27A-M27B-M27CW.) Course M27A is enforced requisite to M27B, which is enforced requisite to M27CW. Introduction to Islam, immensely diverse global traditions, which is second largest religion, Study of Islam and Islamic M27B, which is work of study of global religious traditions and emphasis on profound diversity of localized belief and practice found across world. Examination of Islam's evolution across 15 centuries, from late antiquity — when it emerged as localized religion in Central Arabia—to modern era when it is practice from U.S. to Indonesia. Concentration on broad analytical categories in study of religion such as text, culture, history, and prophecy. Students transition to more complex analyses through chronological overview of Islamic history. Study also of case studies of Muslim global networks in arenas such as art, music, literature, and political thought. Letter grading. M27A-M27B. Lecture, three hours; discussion, one hour. M27C. Seminar, three hours. Satisfies Writing II requirement.

Honor Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors content required. Honors content noted on transcript. Letter grading.

Honor Seminars. (1) Seminar, three hours. Supervised individual research or investigation under guidance of students in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students. May be repeated for a maximum of 4 units. S/U or letter grading.

Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors content required. Honors content noted on transcript. Letter grading.

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 a maximum of 4 units. S/U or letter grading.

Honors Contracts. (1) Tutorial, three hours. 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 a maximum of 4 units. S/U or letter grading.

Honors Contracts. (1) Tutorial, three hours. 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 a maximum of 4 units. S/U 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 M111C and Middle Eastern Studies M111.) Lecture, four hours. Studies in earliest monuments of Islam in Arabia and Jerusalem to humble remnants of small Egyptian port, broad focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Archaeology M112, Art History M119D, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually through Islamic conquest in 7th century C.E. According to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although populations may have become largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present day. Survey of major aspects and standing architecture 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.

M115. Islam and Other Religions. (5) (Formerly numbered M50.) (Same as Religion M115.) Lecture, three hours; discussion, one hour. Students gain familiarity with political and religious changes and modes of interaction.
between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Qur’an reflect religious plurality; how does it situate Islam vis-a-vis its alternatives; what encountered rapid expansion of Islam bring about in diverse societies; factors leading to tolerance and other religions of change, through debate, war, and exchange of ideas; what roles have 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 microstudies anderase religious changes 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’i Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform. Letter grading.

C151. Islamic Thought. (4) Seminar, three hours. Recommended requisite: introductory course on Islam or instructor consent. Introduction to major fields of inquiry and debate in Islamic studies (e.g., exegesis, Hadith, law, theology, Sufism). Focus on debate such as nature of God, jihād, hijab, or pilgrimage. Concurrently scheduled with course C151. Letter grading.

M10. Introduction to Judaism. (5) Same as Religion M103. 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 life-cycle 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 or letter grading.

M67. Popular Jewish and Israeli Music. (5) Same as Musicology M67. Lecture, four hours; discussion, one hour. Music of Jews is diverse. With history of several thousand years and series of developments in modernity, each community has its own style and sounds. Our study of music of Jews within last 100 years, with focus on popular music of Jews in America and Israel. Examination of music of Jews in Israel, with focus on songs of land of Israel, Israeli rock, and Muzika Mizrahit (Middle Eastern popular music). P/NP or letter grading.

M60. Jewish American Experience through Music. (3) Same as Musicology M60. Lecture, three hours; discussion, one hour. In synagogue and on stage, and from LP recordings to YouTube, Jews in America have varied musical experiences. Music of synagogue, celebration, and protest are hallmarks of Jewish music. In this course, we will explore a variety of musical traditions, including Jewish folk music, Yiddish, Klezmer, and Sephardic music. We will also examine how Jewish music has been influenced by and in turn influenced American music. P/NP or letter grading.

M82. 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 used by some individuals to gain favorable treatment, while others weaponized it. Traces development of Euro-American music 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 environmental organizations played in creation of artistic hubs in camps of southern France. Examination of culture of representation of Holocaust, and role of music in society’s collective memory. Letter grading.

M99. 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. In direct 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.

100. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Enrollment limited to 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

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) Same as Hebrew M113. Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/ novellas and films (translated into English) without the language that use, each to varying degree, postmodernist techniques to undermine predominance of modernist-Zionist narrative. Recording and reexamination of Holocaust experience throughout Holocaust. Study of some of newest developments in Holocaust music research, including role American and European environmental organizations played in creation of artistic hubs in camps of southern France. Examination of culture of representation of Holocaust, and role of music in society’s collective memory. Letter grading.

M140A-140B. American Jewish History. (4–4) Lecture, three hours. Examination of social and cultural history of American Jewish community from its inception to the present, with emphasis on integration of successive immigrant waves and development of institutions. P/NP or letter grading.

M142. Modern Israel: Politics, Society, Culture. (4) Same as Middle Eastern Studies M142. Lecture, three hours; discussion, one hour. Examination of political, social, and cultural developments 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 religious and secular groups; and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with tensions between Jews and Arab/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 perspectives used in their analysis. 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 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.

M150A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. M150A. Literary Traditions of Ancient Israel: Bible and Apocrypha. (Same as Comparative Literature M101.) 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.

150B. Rabbinic Judaism. Topics include emergence of rabbinic Judaism; its original literary forms; rabbinic worldview; forms of medieval rabbinic literature; modern Jewish movements and their attitude to rabbinic Judaism.

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading.

M151A. Diaspora Literature. (Same as Comparative Literature M166.) Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts original in or translated from Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. 151B. Israeli Literature. Study of translations from Hebrew literature written in Yiddish and reflecting Jewish facets of Israeli life: social issues, security problems, identity of the state, role of individual. Analysis of formal aspects of each work.

M155. Angels, Demons, and End of World: Magic, Mysticism, and Apocalypse in Jewish Traditions. (4) (Same as Religion M155.) Lecture, three hours. Focus on popular Jewish traditions of magic, mysticism, apocalypse, and various contours of Judaism’s textual and extra-textual engagement with the antiquity. Examination of varieties of literary texts—stories, novels, and poems—and reading of them in context of their historical backgrounds. P/NP or letter grading.

M162. Israel Seen through Its Literature. (4) (Same as Comparative Literature M162.) Lecture, three hours. Attempt to impart profound understanding of Israel as seen through its literature. Examination of variety of literary texts—stories, novels, and poems—and reading of them in context of their historical backgrounds. P/NP or letter grading.

M162C. Modern Jewish History. (4) (Same as History M162C.) 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 culminating 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 shaped 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 in historical and contemporary context. 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. History of Zionism and State of Israel from 1948 to present. P/NP or letter grading.

M187. Holocaust in Literature. (4) (Same as Comparative Literature M165.) Lecture, three hours. Investigation of how Holocaust informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Jewish Studies. (4) Seminar, three hours. Research seminar on selected topics, Reading, 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. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Jewish Studies. (2 to 4) Tutorial, one hour. Limited to juniors/ seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course


Middle Eastern 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 specialization. Limited to freshmen. May be taken in any department, in consultation with faculty sponsors. 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 societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Religion M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including 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.

M50CW. Making and Studying Modern Middle East. (5) Formerly numbered 50C.) (Same as Anthropology M50DW.) Lecture, three hours; discussion, one hour. Requisite: English Composition 3. Survey of modern Middle Eastern cultures through readings and films from Middle East and North Africa. Satisfies Writing II requirement. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of a 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

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 textual remains from Central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Archaeology M112, Art History M119D, and Islamic Studies M112.) Lecture, three hours. Examination of evolution of Christian communities and their reflections in art and 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 Islamic historiography and in shaping of current intellectual importance, taught by faculty members in their areas and examining many paths of discovery at UCLA. P/NP grading.

M200. Visual Language: Study of Writing. (4) (Same as Asian M20, Indo-European Studies M20, Slavic M20, Southwest M20, and Turkish M20.) Lecture, three hours. Survey of structures of number of representative languages from various major branches of Indo-European and Austronesian, and sociocultural background from which these multiform texts emerged, and to explore major themes and consider variety of approaches to scripture, Development of appreciation of different writing systems, and pre-literacy output of brain, irrespective of what may or may not go on inside it, is control over movements. In living 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 systems that control our movement, and how movement, as well as limitations of mobility, relate to personal and community identity. 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 and examining many paths of discovery at UCLA. P/NP grading.

241. Folklore and Mythology of Near East. (4) Lecture, three hours. Exploration of variety of traditions in ancient 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 quests for immortality are all sought in folklore of ancient religions. Directed readings of ancient literatures. S/U or letter grading.

290. Seminar: Paleography. (4) Seminar, three hours. Provides students with ability to cope with varieties of manuscripts. S/U or letter grading.

Near Eastern Languages

Lower-Division Courses

20. Bibliography and Method of Near Eastern Languages and Literatures. (4) (Same as Jewish Studies M141.) Lecture, three hours. Required for MA degree. Introduction to bibliographical resources and training in methods of research in various areas of specialization offered by department. May be repeated for credit. P/NP or letter grading.

210. Study of Religion: Theory and Method. (4) Seminar, three hours. Preparation: familiarity with at least two major world religions. Designated for advanced undergraduate and graduate students. Introductions to variety of theories and methods used in academic study of religion. In attempt to demonstrate importance that historical, cultural, and social phenomena play in development of religious traditions, discussions of theories comparatively and in their historical context, with focus on presuppositions and core concepts and implications of each theory. Letter grading.

219. Survey of Afro-Asiatic Languages. (4) Lecture, three hours. Survey of structures of number of representative languages from various major branches of Hamito-Semitic (Afro-Asiatic) language family. S/U or letter grading.

222. History, Memory, and Identity in Israel. (4) Seminar, three hours. Israel society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and ancient events, and their reflections in art and media. Tension between interpretations of biological systems that control our movement, and how movement, as well as limitations of mobility, relate to personal and community identity. 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.en.
Upper-Division Courses

CM114. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM124 and Slavic CM114.) Lecture, three hours. Considers the issue relevant to heritage language learners (HLL), including heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLS and HLLs; linguistic, demographic, sociolinguistic, and sociocultural aspects; particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLLs) 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. Concurrently scheduled with course CM214, P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 25 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 Courses

CM214. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM224 and Slavic CM214.) Lecture, three hours. Considers issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLLs and HLIs; linguistic, demographic, sociolinguistic, and sociocultural aspects of HLIs. Particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLIs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLIs and foreign language learners (FLIs) 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. Concurrently scheduled with course CM114, S/U or letter grading.

M248. Anthropology and History of Mediterranean. (4) (Same as Anthropology M248 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 studies, the concept of colonial and postcolonial Mediterranean. Levantinism, thalassocracy, Mediterraneanism, French Mediterranean, Jewish Mediterranean, colonial and post-colonial sea and migration, and mobility. Focus on critical history and ethnographical study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

527. Central Asian Studies: Discipline, Methods, Debates. (Same as Anthropology M247Q and History M258.) Seminar, two hours. Introduction to study of central Asia as practiced in humanities and social sciences disciplines. 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 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.

9. 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. Honors content noted on transcript. Letter grading.

99. Directed Research or Senior Project in Semitics. (1 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty mentor 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.

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 Semitics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


215B. Syriac. (4) Lecture, two hours. Morphology and syntax ofSyriac language; readings in Syriac translation ofBible 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 and language ofAkkadian dialects. Course for students who participate regularly in class meetings but without the home work. May be repeated for credit. Course 240. May be repeated for credit. S/U grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of works from various Akkadian literary genres; selected problems in literary history and stylistics. 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 supervision of regular faculty member. Honors content noted on transcript. P/NP or letter grading.
Turkic Languages

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.

98. 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 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 and led by course lecture 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

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 Azeri. (4–4–4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

112A-112B-112C. Advanced Azeri. (4–4–4) Lecture, three hours; laboratory, two hours. Descriptive Azeri grammar, reading, and analysis of Azeri literary and folkloric texts. High-style composition and conversation.

M115A-M115B-M115C. Elementary Azeri. (4–4–4) (Same as Iranian M115A-M115B-M115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Iranian helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.


160. Turkish Tradition. (4) Lecture/discussion. Preparation: entrance examination. Survey of cultural history of the Turks, as seen primarily through their literature, from their early history to the present.

165. Islamic Literary Heritage of Central Asia. (4) Lecture, two hours; discussion, one hour. Systematic survey of Islamic documents produced in Turkish and Persian in Central Asia, with reading of primary sources in English translation. Study of special characteristics of Central Asian Islam.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Fulminating paper or project required; may be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210A. Readings in Ottoman I. (4) Lecture, three hours. Examination of printed texts in Ottoman from 19th and 20th centuries to improve student competence to read, 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. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Graduate Course

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subjects in medical history selected by students with advance 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 relevance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

M169. History of Neurosciences. (4) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through the 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

M171. Variable Topics Research Seminars: Contemporary Biology. (2) (Same as Physiological Science M171.) Seminar, two hours. Limited to under-graduate fellows in Integrated and Interdisciplinary Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Neurobiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in neuroscience and related subject areas appropriate for training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M204.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200C. Sensory Systems Neurobiology. (4) (Same as Neuroscience M221.) 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.

M200F. Cellular Neurophysiology. (4) (Same as Neuroscience M202 and Physiological Science M202.) Lecture, three hours; discussion, two hours. Fundamentals of cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200G. Biology of Learning and Memory. (4) (Same as Neuroscience M220 and Psychology M208.) Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

220. Structural Neurobiology. (2) Lecture, two hours; discussion, two hours; laboratory, two hours. Introduction to molecular structure of chemical, electrical, and mixed synapses as determined by imaging methods such as electron tomography. Comprehensive review of current principles governing synaptic 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 analysis of imaging strategies. Computer laboratory sessions allow demonstration of data processing and interpretation. Three round table discussions provide forum for further inspiration as well as tackling any questions or difficulties that may arise from laboratory and lectures. S/U grading.

225. Functional Organization of Visual System. (2) Seminar, three hours. Preparation: basic neuroscience course. Recommended: neuroscience, neurophysiology, and/or neural systems courses. Designed for neuroscientists, cell biologists, and psychologists. Basic organizational, physiological, and functional principles of visual system and how visual information is processed at different levels of nervous system. Structure, microcircuity 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 reproductive neuroendocrinology throughout mammalian lifespan, with emphasis on appropriate human condition. Discussion of general concepts of endocrine feedback and feed-forward loops, sexual differentiation and function, and structure and function for components of hypothalamic-pituitary-gonadal axis. Exploration of sex differences in physiology and disease. Letter grading.


270. Joint Seminar: Neuroscience Lectures. (1) Seminar, one hour. Formal lectures on current research topics in neuroscience by speakers from national, international, and local neuroscience communities. S/U grading.

M287. Dynamics of Neural Microcircuits. (4) (Same as Neuroscience M287.) Lecture, two hours; discussion, two hours. Development of integrative understanding of neural microcircuits that underlie specific functions of sensory processing, generation, and coordination of motor activity, as well as generation and modulation of neural activity. Letter grading.

296. Research Seminar and Journal Club. (1) Seminar, one hour. Seminar and journal club with focus on current research topics and activities occurring within department. S/U grading.

Overview

Neurology is the medical science dealing with the normal and diseased nervous system. Neurological disorders are often associated with significant disability, morbidity, and mortality. Their higher incidence in association with greater longevity of the population, increased awareness, improved diagnostic methods, and other factors place neurological disorders among the major medical problems today.

The Department of Neurology and the Roy and Diana Vagelos 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 examination of afflicted patients are stressed. The third year consists of a clerkship, and the fourth year provides electives in neurology, including an advanced clinical clerkship.

Graduate students and postdoctoral candidates are trained in both the basic and clinical laboratories.

For more details on the Department of Neurology and courses offered, see the department website.

Neurology faculty information is available from the department.
Neurology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar: one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Neurology. (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.

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
Kate M. Wassium, PhD, Vice Chair

Faculty Committee

Scott H. Chandler, PhD (Integrative Biology and Physiology)
David L. Glanzman, PhD (Integrative Biology and Physiology, Neuroscience)
Paul E. Micevych, PhD (Neurobiology)
Patricia E. Phelps, PhD (Integrative Biology and Physiology)

Mayumi L. Prins, PhD (Neurosurgery)
Kate M. Wassium, PhD (Psychology)
Stephanie A. White, PhD (Integrative Biology and Physiology)

Overview

Neuroscience seeks to understand the brain in health and in disease. Topics of fundamental interest include perception, cognition, learning, memory, motor control, and regulation of body function. The undergraduate interdepartmental program seeks to explore the principles and concepts of this broad range of nervous system function at many levels of analysis, including molecular, cellular, synaptic, network, computational, and behavioral.

Information on the graduate program in this discipline can be found in the Neuroscience graduate interdepartmental program section.

Undergraduate Major

Neuroscience BS

Capstone Major

The Neuroscience major is a designated capstone major. Undergraduate students have the option of conducting two terms of independent research within a faculty laboratory, applying to participate in Project Brainstorm or DOPA-Team, or completing an advanced laboratory methods course with a series of research modules. Through their capstone work, students demonstrate ability to generate testable scientific hypotheses and develop a research plan to test such hypotheses; work on research projects independently and in small groups; evaluate and discuss primary literature and the validity of hypotheses generated by others; communicate effectively orally and in writing; and demonstrate creative thinking.

Learning Outcomes

The Neuroscience major has the following learning outcomes:

• Generation of testable scientific hypotheses and development of a research plan to test such hypotheses
• Work on research projects independently and in small group settings
• Evaluation and discussion of primary literature
• Evaluation of the validity of hypotheses
• Effective written and oral communication
• Demonstrated creative thinking

Entry to the Major

Transfer Students

Transfer applicants to the Neuroscience major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory 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, and one statistics course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 7A, 7B, 7C, 7D; 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, or 5A, 5B, and 5C.

The Major

The Neuroscience major consists of 10 courses (approximately 43 units). Consult respective department or program sections for course descriptions.

Required Core: Neuroscience M101A (with grade of C- or better), M101B, M101C, 102, Chemistry and Biochemistry 153A, Psychological Science 111A and Psychology 115 cannot be substituted for Neuroscience M101A.

Elective Options: One course from each of the following three options:


Capstone Research Options: (1) Neuroscience 101L or Psychology 116A or 116B, (2) Neuroscience C177 and 192CX, or (3) Neuroscience M106.

Honors Program

The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in an honors thesis.
Policies
Preparation for the Major
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major
No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 198 or 199 in any combination) may be applied toward the major. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in all upper-division courses taken for the major.

Capstone
Students who select the Neuroscience 101L or Psychology 116A 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 192OX, 198A and 198B, or 199A and 199B options must take three upper-division electives, one from each elective option.

Honors Program
Majors who have completed all preparation courses with a grade-point average of 3.0 or better and an overall GPA of 3.2 or better may apply for admission to the honors program. Applications and program requirements are available in the Neuroscience Undergraduate Office. Students must submit the application before beginning their upper-division honors requirements. After completion of all requirements and with the recommendation of the faculty sponsor and a second reader of the thesis, the chair confers honors at graduation.

Undergraduate Minor
Neuroscience Minor
The Neuroscience minor is designed to allow students in other majors an opportunity to explore the interdisciplinary field of neuroscience in a structured and rigorous way, while pursuing a major field of study in another discipline at the same time.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better and a 2.5 GPA in the requisite courses for Neuroscience M101A and M101B.

The Minor
Nonscience majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are requisites to the upper-division course requirements.

Required Upper-Division Courses (approximately 31 units): Neuroscience M101A (with grade of C– or better), M101B, M101C (5 units each) and four elective courses selected from 101L, 102, 198A and 198B, and from any of the three elective options listed under the Neuroscience major.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Neuroscience
See the Neuroscience graduate interdepartmental program for graduate courses.

Lower-Division Courses

10. Brain Made Simple: Neuroscience for 21st Century. (4) Lecture, four hours. Preparation: high school background in either biology or chemistry. Not open for credit to students with credit for course M101A (or Molecular, Cell, and Developmental Biology M175A or Psychological Science M180A or Psychology M117A) 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 in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Neuroscience Methods: Art and Science of Studying Brain. (4) Lecture, four hours; discussion, 90 minutes. Preparation: high school background in either biology or chemistry. General overview of field of neuroscience to serve as introduction to Neuroscience major. Topics covered include brief history of field, basic neurophysiology and neuroanatomy, research methods, experimental design, data analysis, and career prospects. May not be applied toward elective requirements for major. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M101A. Neuroscience: From Molecules to Mind– Cellular and Systems Neuroscience. (5) Same as Molecular, Cell, and Developmental Biology M175A, Psychological Science M180A, and Psychology M117A. Lecture, four hours; discussion, 90 minutes. Preparation: 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 and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M101B. Neuroscience: From Molecules to Mind– Molecular and Developmental Neuroscience. (5) Same as Molecular, Cell, and Developmental Biology M175B, Psychological Science M180B, and Psychology M117B. Lecture, four hours; discussion, 90 minutes. Requisites: course M101A (with grade of C– or better), Life Sciences 7C. Molecular biology of channels and receptors; focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transmission, axonal transport, cytoskeleton, and membrane. Classical and modern molecular approaches in developmental neurobiology. P/NP or letter grading.


101L. Neuroscience Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses M101A, M101B, and 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 biological to behavioral. Hands-on experience with important methodology and experimental approaches in neuroscience. Letter grading.


M119N. Visual System. (4) Same as Psychology M119N. Lecture, three hours. Requisite: course M101A or Psychological 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 or 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 regulation of sleep. How our sleep needs are 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 back
progression of scientific understanding and of dynamical
principles inherent in physiological systems. Letter
grading.

142. Neurophilosophy: Introduction and Assessment
from Neuroscience Perspective. (4) Lecture, four hours; course 
M101A or Psychological Science 111A or 118A. Examination of central 
nervous system organization for production of complex
movements such as locomotion, mastication, and respiration.
Letter grading.

150. Biotechnology in Neuroscience. (4) Lecture, 
two and one half hours. Requisite: courses M101A, 
M101B. Preparation: background in biology and biochemistry
and fourth-year Neuroscience majors. Science advances through
development and adaptation of new tools and technologies. 
Covers commonly used techniques in neuroscience research, 
from classical RT-PCR, immunohistochemistry to new
single cell RNASeq and CRISPR. Students gain better understanding of
various methods in field today and tools to advance their
own research and clinical translation of core research
topics to generalized public. Concurrently scheduled
with course C227. Letter grading.

C151. Computational Neuroscience for Interdisciplinary 
Scientists. (4) Lecture, two hours; laboratory, one hour. Requisite: 
courses M101A or Psychology 115; Life Sciences 30A and 30B, or Mathematics 3A, 
3B, and 31A, 31B, and 32A; Life Sciences 40 or Psychology 100A or Statistics 10 or 13. Designed
for students in both experimental and computational 
tracks to acquire significant breadth and depth in computational neuroscience. 
Highly interdisciplinary study in computational neuroscience. Integrates data
-driven modeling, simulations, and analyses of neural dynamics to train students in hypothesis-driven ap-
proach to computational modeling. Students can immediately apply acquired knowledge and skills in
research or industry settings. Concurrently scheduled with course C251. P/NP or letter grading.

M161. Personal Brain Management. (4) Same as 
Psychology M162. Seminar, four hours. Basic overview of 
brain function and consideration of some manage-
ment methods that exist already, and what future may hold.
Methods for predicting our own futures and models that might alter risks and benefits of different courses of action, based on indi-
vidual genetic background and other elements of per-
sonal history and environmental exposures. Introduc-
tion to key factors that affect changes in function, 
illustrating how important health-related behavioral
habits are and how difficult these may be to change and
why. Coverage of topics such as lifestyle changes,
personality, reinforcement of well-being through consid-
eration of stress management, long-term goal and value identification, mapping of long-term goals onto
immediate actions, reinforcement learning, meditation,
network feedback, and time management. Critical ap-
proval of tools to help students distinguish scientific-
vally validated procedures. Offered in summer only.
Letter grading.

M170. Music, Mind, and Brain. (4) Same as Music 
Industry 102D. Seminar, three hours; outside study, 
three hours. In-depth study of music and how the brain
works to determine perception of harmony and rhythm, 
emotion and meaning in music, and musical creativity. 
Prepared to help students understand mechanisms of
brain-behavior correlation. Broad understanding of research
topics in cognitive neuroscience; introduction to fun-
damental principles in neurophysiology, psychophysi-
ology, and neuroanatomy. Letter grading.

C172. Neuroimaging and Brain Mapping. (4) Lecture,
three hours. Requisite: course M101A (or Molecular, 
Cell, and Developmental Biology M175A or Phys-
iological Science M180A or Psychology 101A or Physiolog-
ical Science 111A or Psychology 115. Strongly recommended: course 102. Theory, methods, 
applications, assumptions, and limitations of common techniques for brain imaging, and results. Brain structure, brain function, and their relationship
studied with regard to imaging. Concurrently scheduled with course CM227. Letter grading.

M176. Auditory Neuroscience of Speech Perception
and Vocal Communication. (4) Same as Physi-
ological Science M176. Lecture, two and one half hours;
discussion, 90 minutes. Requisite: course M101A or
M102B. Preparation: background in speech science and
system during development and adulthood, involve-
ment of stem cells in diseases (e.g., brain tumors, Alz-
heimer’s and Parkinson’s). Use of stem cells for therapy. P/NP or letter grading.

M187. Neurobiology of Bias and Discrimination. (4) 
(Same as Psychological Science M162 and Psychology 
M166.) Lecture, four hours. Limited to junior/ senior neuroscience, psychological science, and psy-
chology students. Exploration of aspects of mamma-
lian brain function that generate preference, bias, and
discrimination. Consideration of research at multiple
evels to integrate analysis from genetics to neural circuits 
and behavior. Discussion of societal implications of these
research findings, including their relevance to public
policies and criminal justice system. Letter grading.

188SA. Individual Study. (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 
mentored required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (2) 
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.

189. Advanced Honors Seminars. (1) Seminar, 
three hours. Limited to 20 students. Designed as adjunct to undergraduate course lecture. Exploration of topics in greater depth through small groups, guided 
projects, 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 small groups, guided
projects, papers, or other activities. May be repeated for 
maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter grade.

191A-191B-191C. Variable Topics Research Semi-
inars: Neuroscience. (4–4–4) Seminar, three hours. Topics on one or more aspects of neuroscience. Reading, 
discussion, and development of culminating
NEUROSCIENCE, GRADUATE

Interdepartmental Program
David Geffen School of Medicine
1329 Gonda Center
Box 951761
Los Angeles, CA 90095-1761

Neuroscience Graduate IDP
310-825-8153
Program e-mail

Faculty Committee
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Karen H. Gylys, RN, PhD (Nursing)
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Stephanie A. White, PhD (Integrative Biology and Physiology)

Overview
The interdepartmental Neuroscience PhD program prepares students for careers in neuroscience research and education. The hallmark of the program is an integrated approach to study of the nervous system, using the multilevel analytical tools of molecular, cellular, systems, and/or behavioral biology, as well as quantitative approaches from the fields of mathematics, physics, and engineering. Students working at one or two analytical levels nevertheless learn to appreciate the methods and advantages of higher levels of analysis. Emphasis is both on mechanisms of neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Information on the undergraduate program in this discipline can be found in the Neuroscience undergraduate interdepartmental program section.

Graduate Major
Neuroscience PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses
201. Cell, Developmental, and Molecular Neurobiology. (Formerly numbered M201.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotropic factors. S/U or letter grading.

M202. Cellular Neurophysiology. (Same as Neurobiology M202F and Physiology M202C.) Lecture, three hours; discussion, two hours. Requisites: Physiological Science 111A (or M180A or Physics SC), 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and

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neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M203. Anatomy of Central Nervous System. (4) (Same as Bioengineering M263.) Lecture, 75 minutes; laboratories, two hours. Prior to first laboratory meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Study of anatomical locations of neurons and connections between ascending and descending sensory and motor systems from spinal cord to cerebral cortex. Covers cranial nerves and brainstem anatomy and physiology of ventricular and vascular systems of brain. Subcortical forebrain areas covered in detail. Integrated anatomy laboratory includes brain dissections and overview of tools for MRI analysis. Letter grading.

M240. Synapses, Cells, and Circuits. (4) (Same as Neurobiology M200A.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, 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 molecular mechanisms, cellular processes, anatomical circuits, and behavioral analysis to understand function of neural systems. Letter grading.

M206. Cellular and Molecular Neurobiology. (4) (Same as Bioengineering M262 and Electrical and Computer Engineering M255L.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, 1B, or 1C. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, ECOG), intracellular and extracellular recordings (microelectrodes, microdialysis, microsurgery), neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Debate on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, and treatment of animals and human subjects. Emphasizes biomedical research, conflicts of interest, technology, and scientific integrity. S/U grading.


215. Variable Topics Research Literature Seminars: Neuroscience. (1) Seminar, two hours. Critical discussion and analysis of current literature for various neuroscience research topics. Only one topic may be taken for credit in consecutive quarters. Concurrently scheduled with at least one of the five core courses in neuroscience graduate curriculum. S/U grading.

M220. Biology of Learning and Memory. (4) (Same as Neurobiology M200G and Psychology M208.) Lecture, four hours. Molecules, cellular, circuit, systems, neuroanatomical, and computational models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

M221. Sensory Systems Neurobiology. (4) (Same as Neurobiology M220C.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neurobiology. Letter grading, times, and offtaction, audition, vision, and somatosensory system. Letter grading.

222. Brain Imaging and Brain Stimulation. (4) 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. Emphasis will be on 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. Letter grading. Time spent 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 Physiological Science C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.

M230. Molecular and Cellular Mechanisms of Neu- ronal Integration. (5) (Same as Physiological Science M201.) Lecture, three hours; discussion, one hour. Requisite: course M202. Introduction to mechanisms of synaptic processing. Selected topics of current interest, including regulation of 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.


240. Phenotypic Measurement of Complex Traits. (4) Lecture, three hours. Preparation: background in human genetics helpful. Integrative approach to understanding gene to behavior pathways by examining levels of phenotype expression across systems (cell, brain, organism), across species (invertebrate, fly, mouse, human), and through development across varying environmental milieux. Using examples from human behavior, schizophrenia, autism, both of which extend to human disorders such as schizophrenia and Alzheimer’s disease, treatments, and unmet needs for future research. Letter grading.

245. Optical Approaches in Neuroscience. (4) Lecture, four hours. State-of-the-art, light-microscopy-based approaches in neuroscience. Background material on basic optical principles and microscope design, as well as instrumentation in use of lasers. Technical approaches commonly used in study of nervous system, including imaging modalities such as two-photon microscopy, methods for imaging and stimulating neuronal activity, and advanced microscopy approaches such as FRET and FLIM. Letter grading.

M246. Brain and Behavioral Development during Adolescence. (4) (Same as Psychology M248.) Seminar, three hours. Foundational and emerging work on adolescent brain and behavioral development. Topics include cognition, risk taking, emotion, identity, stress, resilience, sleep, and populations. Discussion of assigned readings and presentations by guest faculty and scientists. S/U or letter grading.

250. Neural Development and Repair. (4) Lecture, four hours. Specific training in neural development and repair, each module covering a research topic and providing perspective on its relevance to human diseases, treatments, and unmet needs for future research. Letter grading.

251. Computational Neuroscience for Interdiscipli- nary Scientists. (4) Lecture, two hours; laboratory, one hour. Requisites: course M101A or Psychology 115; Life Sciences 30A and 30B, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 33A; Life Sciences 40 or Psychology 100A or Statistics 10 or 13. Designed for students in both experimental and computational tracks to acquire significant breadth and depth in computational neuroscience. Highly interdisciplinary study in computational neuroscience. Integrates data-driven modeling, simulations, and analyses of neural dynamics to train students in hypothesis-driven approach to computational neuroscience. Students can immediately apply acquired knowledge and skills in research or industry settings. Concurrently scheduled with course C151. S/U or letter grading.


259. Introduction to Dynamical Systems. (4) Lecture, two hours; discussion, one hour. Introduction to essential concepts of modeling and dynamics, with applications at various levels of physiology and neurobiology. S/U grading.


265. Essentials of Neuro-Oncology. (4) Lecture, 90 minutes; discussion, 90 minutes. Preparation: competence in general statistics, neurobiology, and neuroanatomy. Introduction to clinical neuro-oncology and neuro-oncology research. Exposure to multidisciplinary field of neuro-oncology through weekly meetings consisting of lectures from expert faculty and in-depth journal club or topical discussions on both fundamental and contemporary topics in neuro-oncology. Students learn various types of central nervous system tumors, and how they are diagnosed, treated, and monitored. Unique aspects of treating neuro-oncology patients, including issues associated with changes in quality of life, neurocognition, and psychological concerns. Discussion of current and new approaches to neuro-oncology. Letter grading.


M273. Neural Basis of Memory. (4) (Same as Psychology M270.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and psychological data integrated into models for how behavioral phenomena of memory arise. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.
275. Advanced Techniques in Neurobiology. (2) Lecture, one hour; laboratory, one hour. Preparation: basic biology and chemistry. Designed to provide introduction and, when possible, practical demonstration of a number of techniques used in neurochemical research, with emphasis on techniques used for identification, measurement, and visualization of compounds thought to be important as mediators of intercellular communication in central nervous system. S/U or letter grading.

C277. Drugs of Abuse: Translational Neurobiology. (4) Lecture, four hours. Requisite: Neuroscience M101A. Course ranges from synapse to society. Provides intensive didactic on current neuroscientific basis for understanding substance abuse and blends that material with relevant topics such as epidemiology, co-occurring disorders, treatment options, prevention, and public policies, with emphasis on communication of course materials to general public. Concurrently scheduled with course C177. Letter grading.

M284A-M284B. Principles of Neuroimaging I, II. (4-4) (Same as Psychiatry M284A-M284B and Psychology M298A-M298B.) Lecture, four and one half hours. Preparation: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: Psychology 292. 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, magnetoencephalography, transcranial magneto stimulation, near infrared imaging. Letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Physics and Biology in Medicine M285, Psychiatry M286, 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 protocols, and how to interpret results. Lab- oratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

286A. Electrocencephalography Methods and Analysis I. (4) Lecture, three hours. Recommended preparation: one term of graduate level statistics, biostatistics. Understanding of neural origins of electroencephalography (EEG), common and advanced methods for experimental design and noise reduction, data processing, feature extractions, and biomarker development. Students design simple experimental paradigms to answer some fundamental perceptual and cognitive questions, de-noise already recorded EEG and extract useful information using popular EEG processing interfaces such as EEGLAB and BrainStorm, perform some common statistical tests on the extracted features and explain achieved results, and navigate through state-of-the-art analyses and applications of EEG. Letter grading.


M287. Dynamics of Neural Microcircuits. (4) Same as Neurobiology M287.) Lecture, two hours; discussion, two hours. Development of integrative understanding of neural microcircuits that underlie specific functions neural processing, generation, and coordination of motor activity, as well as generation and modulation of neural rhythms. Letter grading.

M297. Methods in Developmental Cognitive Neuroscience. (Same as Psychology M297.) Seminar, three hours. Survey of methods and tools used to address developmental cognitive neuroscience questions. S/U or letter grading.

375. Teaching Apprentice Practice. (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 current apprentice rotation at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Designed for students requiring special instruction or time to work on dissertation. S/U grading.

NEUROSURGERY

David Geffen School of Medicine

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Neurosurgery
310-267-9449
Linda A. Liu, MD, MBA, PhD, Chair

Overview

Neurosurgery is a discipline of medicine that provides operative and nonoperative management (i.e., critical care, prevention, diagnosis, evaluation, treatment, and rehabilitation) of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply; the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis; and the operative and nonoperative management of pain.

As such, neurosurgery encompasses treatment of adult and pediatric patients with disorders of the nervous system—disorders of the brain, meninges, and skull and their blood supply, including the extracranial carotid and vertebral arteries, disorders of the pituitary gland, disorders of the spinal cord, meninges, and vertebral column, including those that may require treatment by spinal fusion or instrumentation, and disorders of the cranial and spinal nerves throughout their distribution.

For more details on the Department of Neurosurgery, see the department website.

Neurosurgery faculty information is available from the department.

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

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Department e-mail

Lin Zhan, RN, PhD, FAAN, Dean
Lauren Clark, RN, PhD, FAAN, Associate Dean, Academic Affairs
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Elizabeth Yzquierdo, MPH, EdD, Associate Dean, Student Affairs

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. Gylys, RN, PhD
Mary Sue V. Heilemann, RN, PhD, FAAN
Felicia S. Hodge, DrPH
Jian Li, MD, PhD
Robert Lucero, RN, MPH, PhD, FAAN
Paul M. Macey, MD
Nancy A. Pike, RN, PhD, CPNP-AC, FAAN
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Dorothy J. Wiley, RN, PhD, FAAN
Lin Zhan, RN, PhD, FAAN

Professors Emeriti
Nancy L.R. Anderson, RN, PhD, NP-C, AOCN, FAAN
Lina K. Badr, RN, DNscc, FNP-C, FAAN
Mary P. Cadogan, DrPH, GNP-BC, FAAN, FGSA
Betty L. Chang, RN, DNscc, FNP-C, FAAN
Peggy A. Compton, RN, PhD, FAAN
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 designation of the College of Health and Human Biology. 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, social environmental, and cultural and human diversity to the nursing process with a variety of clients, families, and communities from diverse cultural backgrounds.

• Use of the nursing process to promote biopsychosocial health and disease prevention, and to support client resources in community and hospital settings.

• Demonstrated effective communication and collaboration skills with clients, families, research participants, health professionals, and policymakers.

• Identification of practice-based problems and hypotheses, and critique research on issues of importance to nursing and health care delivery within hospital and community settings.

• Effective participation in professional and community organizations and interest groups relevant to health care delivery and modification of nursing standards and practices in keeping with current trends.

• Demonstrated leadership as a health team member to plan, manage, and evaluate care of individuals, families, and communities.

• Practice of hospital- and community-based nursing using principles of ethics, social justice, and law.

Entry to the Major
Admission
The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for first-year students and transfer students at the junior level. First-year applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intersegmental General Education 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.
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.

Requirements
Preparation for the Major

The Major

Nursing MS, PhD 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
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 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.

11. 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, 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. Evaluation of social, cultural, legal, and political forces in relation to paternalism for professional nurses working with diverse patient populations in the 21st century. Letter grading.

54A. Pathophysiology I. (3) Lecture, 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 under-derlying pathologic changes across all body systems are presented. Understanding these alterations is basic to providing quality nursing care. System variations across lifespan are addressed. Letter grading.

54B. Pathophysiology II. (2) Lecture, two hours. Requisites: course 54A. Designed to provide students with understanding of pathophysiological changes that occur at cellular, tissue, and organ level across selected body systems within internal environment of 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 (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
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 mechanism of action, pharmacokinetics, adverse effects, and clinical issues. Letter grading.

150A. Fundamentals of Professional Nursing I. (4)
   Lecture, three hours; laboratory, three hours. Requisites: courses 10, 20, 54A. Focuses on theoretical foundations of primary, secondary, and tertiary prevention as they relate to nurse practice in acute care settings for Nursing BS students. Emphasis is on application of relevant theories to Nursing BS practice roles in health care systems through case study examples, with focus on application to clinical practice settings that include culturally diverse populations. Concepts of communication, nursing process as clinical decision-making strategy, and critical thinking skills are introduced as essential to practice of professional nursing. Learning experiences in nursing skills laboratory and in clinical settings are integral components. Introduction to mathematics calculations and terminology used in clinical setting. Letter grading.

150B. Fundamentals of Professional Nursing II. (4)
   Lecture, three hours; laboratory, three hours. Requisites: courses 150A, 152A, 152B, 174. Continuation of course 150A. Expansion of student knowledge on practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continua. Concepts of communication, interdisciplinary communication and collaboration, interpersonal relationships, cultural competence, and nursing process with critical thinking skills as clinical decision-making strategies essential to practice of professional nursing. Foundations of professional nursing practice roles in health care systems through case study examples. Indirect care management. Characteristics and roles of professional nursing. Development of conceptual framework and collaborative roles in learning experiences in nursing skills laboratory and clinical settings. Continued work on mathematical calculations and terminology with addition of intravenous (IV) drip medication calculations used in clinical setting. Letter grading.

152A. Health Promotion: Growth and Development in Culturally Diverse Populations. (2) Formerly numbered 152W. Lecture, two hours. Introduction to primary prevention strategies as they pertain to health and wellness across lifespan, using population-based approach to nursing care of diverse populations. Priorities in growth and development and reproductive health, including issues related to contraception and well-child care, prevention and chronic illness-prevention strategies for young- and middle-aged adults; elderly who live independently in
152B. Health Promotion: Nutrition in Culturally Diverse Populations. (2) Lecture, two hours. Examination of primary prevention strategies involving nutrition using nutritional and behavioral models to approach nursing care of diverse populations. Investigation of nutrition in relation to prevention of disease and recovery from disease. Covers biological, public health, and clinical nutritional aspects with emphasis on micro- and macro-nutrients, obesity, malnutrition, dietary assessment, nutritional therapies, and exercise using candidate disease approach. Examination of influences of overarching political, societal, and governmental systems within U.S. and outside U.S. on observed nutritional patterns. Letter grading.

C155. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, two hours. Exploration of theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through small-group discussions with peers around world, reflect on how globalization shapes and transforms local communities and national cultures. Concurrently scheduled with course C255. Letter grading.

160. Secondary Prevention. (4) Lecture, four hours; requisites: courses 150A, 150B, 152A, 152B. Screening and early detection of illness to prevent chronic or acutely deteriorating illness. Expanding on concepts of health and human development and using nursing process, application of nursing role in providing care to individuals and their families to screen, diagnose, and treat illness at earliest possible time to prevent disability or premature mortality. Examination of health of individuals within intimate family, social and community systems, and interdisciplinary healthcare systems. Emphasis on differences in developmental stages in response to screening for early and late signs and symptoms of illness in ambulatory care settings, surgical units, and home and community settings. Letter grading.


162A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, three hours; clinical, three hours. Requisites: courses 54A, 54B, 150A. Corequisites: courses 115, 150B. Examination of nursing assessment and intervention of common health problems that adults experience. Theory content in basic assessment, health history, and diagnostic reasoning for selected health problems, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, nursing care, therapeutic interventions, and communication concepts as applied to clinical reasoning, when application of nursing practice, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised clinical practicum experience through setting of multidimensional men, with focus on application of theory in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for maternity/newborn patients. Intermediate-level assessment, health maintenance, and management of symptoms of illness in this population. Letter grading.

162B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Requisite: course 162A. Pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of adult patients with complex illness, including multifaceted assessment, health history, and diagnostic reasoning skills, and emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, patient safety, and communication concepts as applied to care of medical and surgical patients. Supervised practicum experience within settings of multidisciplinary care of medical-surgical clinical units, with focus on clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for infants, children, and adolescents. Application of nursing process, evidence-based practice, and 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 interpretation, evidenced-based practice, and diagnostic data for purpose of planning, implementing, and evaluating nursing care for infants, children, and adolescents. Letter grading.

162C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (8) Lecture, four hours (10 weeks); clinical, 24 hours (five weeks). Requisite: course 162B. Nursing assessment and management of acute and chronic health problems for acutely ill adults. Content in assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Integration of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, evidenced-based practice, patient safety, and communication concepts as applied to care of acutely ill medical patients with complex comorbid conditions, and their families. Emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical reasoning, evidence-based practice, and clinical thinking that maximize patient safety and quality care. Diagnosis and management of health care problems managed by master’s-level clinical nurses in acute care settings. Letter grading.

163. Nursing Care of Geriatric Patients and Families. (3) Lecture, two hours; clinical, one hour. Requisite: course 162A. Addresses prevention and management of acute and chronic health problems of older adults. Theory content assessment, goal setting, treatment planning, and evaluation of nursing care of older adults and their families with emphasis on psychosocial, cultural, and developmental influences. Students integrate knowledge of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of older adult patients and their families. Focus on role of nurse as nurse scientist with critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidenced-based practice, and critical thinking that maximize patient safety and quality care for older adults are employed during clinical experiences. Letter grading.

164. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 160, 160B. Nursing assessment and management for selected acute and emergent problems in maternity/newborn patients, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, nursing care, pharmacology, therapeutic interventions, and communication concepts as applied to clinical reasoning, when application of nursing practice, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised clinical practicum experience through setting of multidimensional men, with focus on application of theory in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for maternity/newborn patients. Intermediate-level assessment, health maintenance, and management of symptoms of illness in this population. 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 issues of professional practice, evaluation of professional practice, patient safety and quality improvement, accreditation process for health care systems, and contemporary issues in care of patient-centered care as transition is made from student role to that of practicing professional nurse. Focus placed on preparation for National Council Licensure Examination (NCLEX). 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 including health departments, health policy institutions, and public service agencies. Clinical practicum activities include health promotion and disease prevention at level of communities, populations, and ecosystems, both domestically and globally. Letter grading.

M172. Care Work: Disability Justice and Health Care. (2) Same as Disability Studies M172. Lecture, one hour; discussion, one hour. Exploration of nature, history, art, and politics of care work, disability, disability justice movement, and health care. Consideration of intersections, interdependence, and corporeal forms of informal and formal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Letter grading.

M172XP. Care Work: Disability Justice and Health Care. (3) Same as Disability Studies M172XP. Seminar, one hour. Corequisite: course M172. Exploration of nature, history, models, and propositions of care, care work, disability justice, disability studies, and health care. Consideration of intersections, interdependence, and corporeal forms of informal and formal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Letter grading.
Graduate Courses


202. Philosophy of Nursing Science. (4) Lecture, four hours. Focus on philosophy of nursing science by exploring generalities of thought that underpin epistemological assumptions about knowledge. Examination of philosophical concepts that shape discipline of nursing in relation to their influence on scientific reasoning and method; focus is on both qualitative and quantitative, used by nurse scientist to create new knowledge. Analysis of contemporary schools of thought (modern and postmodern) in relation to nursing scholarship as well as role of nurse scientist as leader in policy development in greater healthcare milieu. Letter grading.

204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Complex research designs and analysis of methodology and research design. Emphasis on techniques for control of variables, data analysis, and interpretation of results. Focus on in-depth analysis of interrelationship of theoretical frameworks, design, sample selection, data collection instruments, and data analysis techniques. Content discussed in terms of clinical nursing research problems and application to clinical settings. Letter grading.

205A. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Course 205A. Introduction to qualitative research design in nursing science. Examination of major methodologies that guide qualitative research in relation to various strategies for data collection (interviews, participant observation, focus groups), data analysis, and data interpretation. Scientific rigor and ethical concerns for research with human participants critically examined. Letter grading.

205B. Advanced Qualitative Research: Grounded Theory Methodology I. (4) Lecture, four hours. Requisite: course 205A or equivalent approved by instructor. Focus on qualitative research methodology of project study based on grounded theory methodology. Symbolic interactionism and constructivism as foundation with grounded theory as guide to recruit small sample of individuals, collect data, analyze data, and simultaneously analyze data through inducive coding and memora nda writing. Employment of constant comparison and examination of key elements of self-reflexivity and research ethics. Letter grading.

205C. Advanced Qualitative Research: Grounded Theory Methodology II. (4) Lecture, four hours. Requisites: courses 205A, 205B, or equivalent as approved by instructor. Advanced techniques for simultaneous collection and analysis of qualitative data. Employment of advanced levels of coding based on constructivist grounded theory methodology and situational analysis. Development of conceptual formulation (or grounded theory) based on pilot 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), 206A Preparation: 4 units of nursing theory. Critical analysis of role of theory and theoretical frameworks in developing nursing research. Application of skills fundamental to development of theory in nursing and integration of use of theory in nursing research. Letter grading.

206B. Nursing Theory Development. (2) Formerly numbered 206E. Lecture, two hours. Requisites: courses 202 or philosophy of science (may be taken concurrently), 206A Preparation: 4 units of nursing theory. Critical analysis of role of theory and theoretical frameworks in developing nursing research. Application of skills fundamental to development of theory in nursing and integration of use of theory in nursing research. Letter grading.

211. Women's Health Primary Care. (2 to 4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

213. Directed Research or Senior Project in Nursing. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty mentor and student. Signed agreement and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

215. Psychological Aspects of Women's Health. (4) Lecture, four hours. Requisites: course 211 or approval of instructor. Advanced concepts in contemporary research and theoretical perspectives related to psychosocial, behavioral, and biophysical measurement and analysis in nursing research. Analysis of psychometrics, reliability, and internal validity of research instruments, with connection to outcomes in nursing research. Letter grading.

209. Human Diversity in Health and Illness. (4) Lecture, four hours. Human diversity in response to illness that nurses diagnose and treat, centering on cultural and societal belief systems, personal, cultural, and social orientations 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. Requisite: doctoral standing or consent of instructor. In-depth exploration of state of scientific knowledge, both quantitative and qualitative, in biologic, vulnerable populations, and biobehavioral research topics. Students explore research on particular phenomena, analyze current and historical scholarly findings in literature, critique significance of focus on this phenomenon for nursing science, identify crucial and meaningful gaps in knowledge through systematic review of research literature, and provide recommendations for future research in biologic, biobehavioral, vulnerable populations, and health services research. Letter grading.

210B. State of Science in Nursing: Critical Synthesis of Literature. (3) Formerly numbered 210L) Lecture, three hours. Requisites: course 210A. Advanced level of critical thinking required. Students will synthesize courses research relevant for health service, biological, vulnerable populations, and biobehavioral topics. Students will analyze and explain gaps in scientific knowledge and scholarship relevant to research area. Students broaden exploration and analysis of identified gaps in current knowledge through advancing systematic reviews, critiques, and synthesis of research literature. Letter grading.

211. Women's Health Primary Care. (2 to 4) Lecture, three hours; discussion, one hour. Theory and research on assessment and management of women's health issues across the lifespan. Topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion of members during reproductive years in primary care settings. Letter grading.

212. Family Healthcare Perspectives. (2) Lecture, two hours. Overview of conceptual frameworks related to contemporary family structure and functioning with particular emphasis on health. Family is defined broadly to include nontraditional families; consideration of cross-cultural views of families as well. Identification of limitations of current theory and research related to family study and applicability of cur rent knowledge to various problems encountered in care of families. Letter grading.

213. Worker Health and Safety: Role and Theory. (4) Lecture, four hours. Adult/gerontology primary care needs of workers from vulnerable populations. Letter grading.


site to 216C. Assessment and management of health problems affecting adult/gerontology population from late adolescence to senescence in acute care settings. Synthesis of knowledge from advanced courses in pathophysiology, pharmacotherapeutics, health promotion, and evidence-based psychosocial care and cultural constraints. Letter grading.

220. Theories of Instruction and Learning in Nursing. (3) Lecture, two hours. Theories of learning, curriculum and program development, and principles and techniques of evaluation of educational systems. Preparation of advanced practice nurse in variety of settings and with diverse cultural and socioeconomic groups. Opportunities provided for skill development in use of computerized information systems and development of instructional aids. Letter grading.

223. Childhood Development: Research and Application to Nursing. (3) Lecture, three 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, anticipating problems, and managing barriers to growth and development throughout childhood. Letter grading.


225A-225B. Advanced Pharmacology I, II, (3–3) Lecture, three hours (course 225A) and two hours (course 225B). Course 225A is requisite to 225B. Emphasizes basic pharmacological principles in addition 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, pharmacokinetics, indications, and adverse effects. Discussion of quality and safety of pharmacological interventions in clinical practice, with emphasis on collaborative teamwork (i.e., nurses, physicians, pharmacists) and evidence-based practice (e.g., current guidelines). Letter grading.

229A-229B-229C. System-Based Healthcare I, II, III, (1–1–1) Seminar, two hours. System-based healthcare where students focus on context of medical decision making: personal, hospital, cultural, political, and patient. Focus includes legal, political, and moral aspects of sexual assault and abortion; economics and cultural considerations involved in decision making; and personal 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 (professionalism). S/U grading.

230A. Advanced Pathophysiology I. (3) Lecture, three hours. Requisites: 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 adaptation, fluid and electrolyte balance, acid-base balance, immunity, inflammation, infection, wound healing, genetics, neoplasms, temperature regulation, somatosensory and pain processing, stress and disease, and activity and fatigue regulation. Detailed study and analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, system and human levels. Letter grading.

230B. Advanced Pathophysiology II. (2) Lecture, two hours. Requisite: course 230A. In-depth examination of pathophysiological processes that underlie human illness and disease, with detailed study of these processes. Examination of manifestations of, and responses to, processes of cellular and molecular pathology at cellular, tissue, system, and human levels. 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 processes. Analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, 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, 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, (2 or 4) Lecture/discussion, four hours. Biopsycho-social concepts and nursing management of healthy, disabled, and/or chronically ill older adults, addressing pathophysiological aspects of common health problems. Implications for advanced practice in gerontological nursing. Letter grading.


237A. Assessment and Management in Pediatric Acute Care II. (3) Lecture, three hours. Two-course sequence for acute care pediatric nurse practitioner student. Focus on pathophysiology of specific disease processes, clinical assessment, evaluation of decision-making, and treatment modalities in managing acute critical, chronic, and chronic health conditions in infants, children, and adolescents. Cultural sensitivity, child development, family support, ethical issues, and legal aspects of acute care for life care integrated into select acute/chronic conditions. Lectures and other learning activities demonstrate application and evaluation of knowledge and research and clinical guidelines in pediatric population. Letter grading.

237B. Assessment and Management in Pediatric Acute Care II. (3) Lecture, three hours. Two-course sequence for acute care pediatric nurse practitioner student. Focus on pathophysiology of specific disease processes, clinical assessment, evaluation of decision-making, and treatment modalities in managing acute critical, chronic, and chronic health conditions in infants, children, and adolescents. Cultural sensitivity, child development, family support, ethical issues, and legal aspects of acute care for life care integrated into select acute/chronic conditions. Lectures and other learning activities demonstrate application and evaluation of knowledge and research and clinical guidelines in pediatric population. Letter grading.


238B. Assessment and Management in Pediatric Primary Care. (4) Lecture, four hours. Requisite: course 238A. Assessment, diagnosis, and management of common pediatric illnesses. Demonstration of application and evaluation of evidence-based research and clinical guidelines in pediatric population. Letter grading.

239A-239B-239C. Adult/Gerontology Primary Healthcare for Advanced Practice Registered Nurses. (4) Lecture, four hours. Requisites: courses 200, 224, 231. Course 239A is requisite to 239B, which is requisite to 239C. Assessment, diagnosis, and management of common episodic and chronic health issues of adult and older adults. Inclusion of urgent care, for family and adult/gerontology primary care nurse practitioners. Application and evaluation of evidence-based interventions and clinical guidelines in older age groups. Letter grading.

240. Meeting Health-Related Needs in Under-served Populations. (4) Lecture, four hours. Examination of systematic barriers within healthcare settings that limit access to those in greatest need of care. Inappropriate medication or healthcare treatment. Overcrowding needs often result in health disparities and compromised quality of care among underserved, low income, uninsured, marginalized populations. Analysis of current evidence-based solutions designed to address these clinical problems and improve outcomes in culturally competent manner. Presentation of context of healthcare financing, limited access, and quality of care for underserved populations. Letter grading.

250. Ethical Issues, Social Justice, and History of Nursing. (5) Lecture, five hours. Interplay of social, economic, cultural, legal, and political forces in the U.S. form background for study of ethical issues related to social justice and safe, effective, high-quality patient-centered care in contemporary society today. Analysis situated within history of nursing, role of nurses in society, and role of public policy. Letter grading.

252A. Health Promotion: Growth and Development in Culturally Diverse Populations. (2) Formerly numbered 252S.) Lecture, two hours. Introduction to public health sciences, strategies to promote health and wellness across lifespan, using population-based approaches to nursing care of diverse populations. Includes priorities in reproductive health including issues related to contraceptive and parenting; well-child care, school-age health, and chronic illness prevention strategies for young and middle-aged adults and elderly who live independently in communities or within institutions. Analysis of influence of overlapping political, societal, and governmental systems within U.S. Letter grading.


255S. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, five hours. Exploration of theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights and how these perspectives influence human health and wellness. Unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students,
through collaborative projects with peers around the world, reflect on how globalization shapes and transforms local communities and national cultures. Currently scheduled with course C155. Letter grading.

295A. Grant Writing I: Scientific Proposal Development. (Seminar) Three hours. Requisites: courses 202, 205A, 206A, 210A, 210B, Biostatistics 100B. Introduction to grant writing, with focus on preparing applications 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 post-doctoral research, research activities, and professional development. Letter grading.

295B. Grant Writing II: Scientific Proposal Development. (Seminar) Four hours. Requisites: courses 202, 205A, 206A, 210A, 210B, 295A. 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 of role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. Letter grading.

295C. Nursing Science Seminar. (Seminar) Two hours. Requisites: course 295A. Introduction to grant writing, with focus on preparing applications for National Student Research Award. Discussion of requirements of various extramural and specialty organization funding sources, and evaluation criteria identified. Role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. Letter grading.

M298. Interdisciplinary Response to Infectious Disease Emergencies: Nursing Perspective. (Same as Community Health Sciences M256, Medicine M256, and Oral Biology M256.) Lecture; three hours; discussion; one hour. Emphasis on role of DNP leader in developing and leading interdisciplinary teams and working in the context of interdisciplinary practice in complex health care environments. 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.

299A. Ethical Conduct in Research. (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, responsibility, confidentiality, data management, and handling of misconduct in research with both human and animal subjects. Systematic instruction on ethical and responsible conduct and protection of research subjects as students create their own application for research. Letter grading.

299B. Nursing Research Mentorship. (Seminar/discussion) One hour; research/laboratory, three hours. Requisites: courses 202, 205A, 206A, 206B, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 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. (Seminar/discussion) One hour; research/laboratory, three hours. Requisites: courses 202, 205A, 206A, 206B, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 210A. Special topics course for doctoral students who have completed required coursework and are preparing to advance to doctoral candidacy. Review of methods to improve patient-care outcomes such as organizational support, effective teamwork, and quality improvement. Emphasis on quality management, patient safety, mitigating health disparities, 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. (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.

275. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged; Preparation: apprentice personnel must be employed 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. (Seminar) Lecture/seminar, three hours. Requisite: doctoral standing. Provides interdisciplinary background in sciences of quality improvement and patient safety, with focus on evaluating quality measurement methods and tools. Addresses evolution and history of clinical science, and theories and thoughts of clinical leaders. Emphasizes evaluation of quality measurement tools, and structure of quality measurement systems and how to use them in clinical practice. Emphasis on principles of change theory, strategy planning, organizational culture, programs, and building and evaluation of effective teams. Supports students in the development of mechanisms to improve quality in clinical care delivery, and nurse leadership roles. Letter grading.
429B, Family Nurse Practitioner Practicum II. (4) Clinic practicum, 12 hours. Requisite: course 429A. Second of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on synthesis, management, and risk reduction interventions across wide range of diverse populations. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

429C-429D. Family Nurse Practitioner Practicum III, IV, V. (6–9–5) Clinic practicum, 18 hours (courses 429C and 429D), and 27 hours (course 429E). Requisite: course 429C; course 429B; for 429D: course 429C; for 429E: course 429D. Third, fourth, and fifth of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on synthesis, management, and risk reduction interventions across wide range of diverse populations. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

429E. Family Nurse Practitioner Practicum V. (6) Clinic practicum, 12 hours. Requisite: course 429A. Sixth of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on synthesis, management, and risk reduction interventions across wide range of diverse populations. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

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of community, cultural awareness, and practice in interdisciplinarity. Students complete a minimum of 240 direct clinical hours. Letter grading.

440. Advanced Assessment and Clinical Diagnosis for Advanced Practice Nurses. (2) Laboratory, clinical practicum, six hours. Practice foundations for advanced physical and clinical diagnostic reasoning. Students conduct individualized patient and symptom-focused assessments of health problems representative of diverse client populations. Emphasis on comprehensive and integrated critical analysis of symptom and focused history data, physical examination, selected laboratory data, and clinical diagnoses. Letter grading.

441. Advanced Diagnostic Statistics. (3) Lecture/ laboratory, three hours. Requisite: course 440. Designed for acute-care pediatric nurse practitioner students. Advanced diagnostic reasoning and skills in management of infants, children, and adolescents with complex acute, critical, and chronic health conditions. Focus on expanding knowledge of pediatric assessment and management of selected health conditions to aspects of diagnostic tests, test interpretation, and invasive procedures to stabilize or monitor acute, critical, or chronic pediatric patient. Lectures and other learning activities demonstrate application and evaluation of diagnostic and statistical techniques. Student encounter with clinical guidelines in pediatric population. Letter grading.

444. Adult/Gerontology Acute Advanced Assessment and Clinical Diagnosis II. (2) Clinic practicum, six hours. Enforced requisite: course 440. Practice foundation for clinical assessment of diagnostic reasoning, with focus on diagnostic or therapeutic procedures and related indications, complications, and follow-up care in laboratory setting. S/U grading.

445. Advanced Practice Registered Nursing: Clinical Nurse Specialist Practicum. (2 to 10) Clinic practicum, six to 30 hours. Requisite: courses 220, 245. Practicum experience for students gaining direct access to patients and communities to function collaboratively and autonomously to achieve high quality patient outcomes. Clinical nurse specialty (CNS) practice achieves this by working in the areas of influence: patient/ family, nursing personnel, and organizational systems utilizing multidisciplinary approach through application and integration of theory, research, and clinical knowledge, 17 units complete minimum of 500 unique CNS hours required for professional certification. Letter grading.

450. Advanced Practice Registered Nursing: Clinical Elective Independent Study. (2 to 8) Clinic practicum. 3 to 12 hours. Requisite: courses 220, 230, 245. Practicum experience designed to enhance skills and competencies in student-selected advanced practice specialty or related practice dimension, with emphasis on application and integration of theory and evidence-based practice knowledge. S/U grading.


465A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, three hours; clinical, three hours. Enforced requisites: courses 230A, 250, 254A. Examination of nursing assessment and management of common health problems of adults. Theory content in basic assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development, and health promotion concepts applied to care of adult patients and their families. Emphasis on concept of nurse as nurse scientist with critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical reasoning, evidenced-based practice, and clinical thinking that maximize patient safety and quality care for older adults are employed during clinical experiences. Letter grading.

465B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Requisites: courses 252A, 252B, 260, 465A. Pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of adult patients with emphasis on social, cultural, and developmental influences and integration of basic knowledge of pathophysiology, pharmacology, pharmacotherapy, therapeutic interventions, patient safety, evidence-based practice, and communication concepts as applied to care of medical-surgical patients and their families. Letter grading.

465C. Tertiary Prevention and Care of Complex Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, 12 hours. Requisites: courses 252A, 252B, 465A. Examination of assessment and management of acute and chronic health problems of acutely ill adults. Theory content in assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, pharmacology, stress and adaptation, adult development, therapeutic interventions, patient safety, evidence-based practice, and communication concepts as applied to care of acutely ill medical-surgical patients, with complex and comorbid conditions, and their families. Concept of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidence-based practice, and clinical thinking that maximize patient safety and quality care for acutely ill adults employed during clinical experiences. Letter grading.

467. Clinical Internship. Integration. (12) Clinical, 36 hours. Requisites: courses 250, 461, 462, 463, 464, 465A, 465B, 465C. Examination of nursing assessment and management of acute and chronic health problems of patients within clinical setting as part of interdisciplinary health care team, with focus on application of theory in clinical setting and interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Students design and complete quality improvement project that contributes to unit’s goal and objectives. Students implement advanced level assessment, health maintenance, and management of symptomatology across lifespan. S/U grading.

470A. DNP Scholarly Project Course I: Project Conceptualization and Planning. (2) Lecture, two hours; clinical, six hours. Requisite: course 470A. DNP students develop full DNP scholarly project proposal that provides synthesis of student’s knowledge from prior coursework and work in area of interest or expertise under direction of faculty mentor. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470B. DNP Scholarly Project Course II: Project Proposal. (8) Lecture, two hours; clinical, six hours. Requisite: course 470A. DNP students develop full DNP scholarly project proposal that provides synthesis of student’s knowledge from prior coursework and work in area of interest or expertise under direction of faculty mentor. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470C. DNP Scholarly Project Course III: Project Implementation. (8) Lecture, two hours; clinical, six hours. Requisite: course 470B. Continued development of knowledge, skills, and abilities to implement chosen DNP scholarly project proposal. Students assume role of leadership in interprofessional collaboration, consultation, and partnership. Students receive direction from faculty committee chair and peer feedback as they become engaged in microsystem where they implement their DNP scholarly project. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470D. DNP Scholarly Project Course IV: Project Evaluation. (8) Lecture, two hours; clinical, six hours. Requisite: course 470C. Students complete evidence-based DNP scholarly project. Students complete comprehensive project plan. Evaluation of student’s final DNP scholarly project manuscript. Students receive individual direction from faculty committee chair and peer feedback as final DNP scholarly project paper is written. Students are also mentored in making professional presentations and writing for publication. Letter grading.

495. Nursing Education Practicum. (2) Seminar, six hours. Supervised student teaching internship in preparation for academic roles. In-depth opportunity
to gain skills in role of nurse educator within university setting, including application of instructional strategies and evaluation methods. S/U grading.

496A-496B-496C. Education Practicum in Nursing Practice I, II, III. (1-1-1) Activity, one hour: discussion, one hour. Corequisites: course 496A; courses 401, 402; course 496A is requisite to course 496B, which is requisite to course 496C. Focuses on development and implementation of patient education program. Prepares DNP students for teaching roles in variety of different health care settings. Emphasis on application of educational program structure, content, appropriate curriculum development, methods of teaching and evaluation that can be applied in variety of different settings in which DNP advanced practices nurses teach. In progress (courses 496A, 496B) and letter (496C) grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Opportunity for individual graduate nursing students to pursue special studies or research interests. May be repeated for credit, but only 4 units may be applied toward graduate degree requirements. S/U grading.

597. Individual Study for Comprehensive Examination. (2 to 4) Tutorial, to be arranged. Opportunity for individual graduate nursing students to prepare for comprehensive examination. May be repeated once for credit, but only 4 units may be applied toward MSN degree requirements. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 12) Tutorial, to be arranged. Individualized faculty supervision of PhD dissertation research by student’s chair. May be repeated for credit; only 8 units may be applied toward PhD degree requirements. S/U 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.

199. Directed Research in Obstetrics and Gynecology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Obstetrics and Gynecology

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Obstetrics and Gynecology
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Overview
The medical student program in the Department of Obstetrics and Gynecology is designed to provide students with firm background in the essentials of women’s reproductive health. The educational objectives are set forth by the Association of Professors of Gynecology and Obstetrics (APGO). Through a combination of didactic instruction and supervised clinical experience, students acquire the relevant clinical skills of history taking and physical examination and learn reproductive physiology from infancy to the postmenopausal period; antepartum, intrapartum, and postpartum obstetric care; and recognition and management of various gynecologic disorders. Students work in ambulatory clinics and on inpatient services during a four-week core clerkship. Greater depth of experience is provided by elective clerkships during the fourth year that emphasize subspecialties such as maternal/infant 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 contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Obstetrics and Gynecology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Ophthalmology

David Geffen School of Medicine
2-142 Stein Eye Institute
Box 957000
Los Angeles, CA 90095-7000

Ophthalmology
310-825-5053

Bartly J. Mondino, MD, Chair
Anthony C. Arnold, MD, Vice Chair, Education
Anne L. Coleman, MD, PhD, Vice Chair, Academics
Alfredo A. Sadun, MD, PhD, Vice Chair, Doheny Eye Centers-UCLA
Alapakkam P. (Sam) Sampath, PhD, Associate Director, Jules Stein Eye Institute

Overview
Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology as well as the Stein Eye Institute and Doheny Eye Institute are closely coordinated to form a comprehensive center for research in the sciences related to vision, for the care of patients with disease of the eyes and related structures, and for education in the broad field of ophthalmology, all with community outreach.

The Department of Ophthalmology provides instruction and electives to medical students during the first, second, third, and fourth years at the Stein Eye Institute and the Doheny Eye Centers UCLA. Through lectures, demonstrations, discussions, and the opportunity to observe patients and review data on cases with a variety of ocular conditions, students gain knowledge and experience in ophthalmology.

For more details on the Department of Ophthalmology and courses offered, see the department website.

Ophthalmology faculty information is available form the department.

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.

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 Ophthalmology. (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.

Oral Biology

School of Dentistry
13-089 School of Dentistry
Box 951668
Los Angeles, CA 90095-1668

Oral Biology
E-mail contact

Cun-Yu Wang, DDS, PhD, Chair
Oral Biology
Lower-Division Courses

19. Fist 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. Advanced Oral Biology: Ontogenesis. (3) Lecture, three hours. Evolutionary perspective of 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 anatomical and physiological point of view, followed by embryogenesis of orofacial and dental structures of humans. S/U or letter grading.

201C. Advanced Oral Biology: Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of oral cavity. Topics include microbiologically mediated demineralization of hard tissues, soft tissue infections, carcinogenesis, colonization of mucosal substrates by opportunists, etc. S/U or 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 software, and open discussion of specific needs of oral biology students when they design their research. Letter grading.


205C. Advanced Seminar: Comparative Effectiveness and Evidence-Based Research. (2) Seminar, one hour; discussion, one hour. Requisites: courses 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared mechanism in comparative effectiveness and evidence-based research. Specialized topics include level and quality of evidence assessments, acceptable sample size 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 research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunopathology, caries immunology, endodontic immunology, etc. Letter grading.

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. Required course in scientific ethics for graduate students in Oral Biology MS and PhD programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of Temporomandibular Joint. (2) Lecture, two hours. Anatomy, histology, physiology, and biomechanics of temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensomotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging. S/U or letter grading.

212. Prosemia: 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, microarray background, 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 disciplines that complement one another to unravel complexity of biology in biomaterials in relation to dentistry; Integration of bioengineering, materials sciences, cell biology, and dentistry. Fundamentals of material science in relation to dentistry, stem cell biology, and knowledge necessary to participate in dental and biomedical research, innovation, and product development. Letter grading.

221. Advanced Dental Materials. (2) Lecture, one hour; laboratory, 90 minutes. Preparation of individuals for academic and research careers in dental materials science or broader area of biomaterials relevant to clinical dental practice. Fundamentals of dental materials science in relation to dentistry, stem cell biology, and knowledge necessary to participate in research and product development. Introduction to materials science, with focus on major classes of materials used in dentistry, including polymers, metals, and ceramics, and providing up-to-date information on dental materials currently used in clinical dentistry. Letter grading.

228. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation of individuals with background in histology and embryology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human bi-
ology as they apply to classic and current concepts of 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 their specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Description and interpretation of important stages in development of orofacial apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of orofacial apparatus that are of significance to clinical dental specialists. S/U or letter grading.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry. General principles of 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, biocultural, and anthropological knowledge 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, 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) (Same as Community Health Sciences M256, Medicine M256, and Nursing M298.) 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 disorders. Letter grading.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecular and cell biology, with emphasis on application to oral biology. 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 956802

Los Angeles, CA 90095-6902

**Orthopaedic Surgery**

310-825-6557

Frances J. Hornickel, 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 fellows 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 Courses**

110. Introduction to Cytogenetics. (4) Lecture, one hour; discussion, two hours. Limited to upper-division biology students. Cytogenetics is branch of genetics concerned with study of structure and function of cells, especially chromosomes. Coverage of 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 cytogentics, including fluorescence in situ hybridization (FISH), comparative genomic hybridization (CGH), and array CGH to diagonal constitutional syndromes and cancer. Journal club sessions include discussion of two journal articles per meeting (one basic and one clinical, and one basic/clinical). Presentation of at least one journal article and leading of one group discussion required. Letter grading.

18BSA. 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.

18SSB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 18BSA. 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 study in regularly scheduled meetings with faculty mentor required. May not be repeated. Letter grading.

18SSC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 18BSA. 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 Pathology, (2 to 4) Tutorial, 10 hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


222. Hematopoiesis: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Senior undergraduate students considered on case by case basis. An in-depth study of concepts and paradigms in hematopoietic development. Mammalian hematopoiesis and normal development, with focus on molecular regulation of cellular development and equal emphasis on cellular and experimental aspects of knowledge in field. Discussion of important pathological states within hematopoietic system, as well as established and novel avenues for therapy. Topics include stem cell and microenvironmental interactions, transcriptional and epigenetic regulation of hematopoiesis, B- and T-lymphocyte development, myeloid, erythroid, and platelet development, immune responses, myeloid and lymphoid malignancies, and bone marrow transplantation/gene therapy. S/U or letter grading.

M229. Molecular Mechanisms of Host/Pathogen Interaction, (4) (Same as Microbiology M229) Lecture, two and one hour. Limited to junior/senior USIE students. Syllabus includes: 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 vi}-

ruses, 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, two hours. Preparation: one course each in molecular biology and biological chemistry. Discussion of key issues in disease mechanisms, with emphasis on experiments leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. Letter grading.

238. Histology and Pathology for Graduate Students. (2) Laboratory, two hours. Designed for UCLA ACCESS for 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, updates on basic science of immune mechanism, including various aspects of immunosuppressant and immunotherapeutic principles with clinical practice. Letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Human Genetics M255S) Lecture, three hours. Basic molecular genetic and cytogenetic techniques, gene mapping, gene deficiencies, and techniques for genome 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.

256. Seminar: Viral Oncology. (2) Seminar, two hours. Advanced research seminar designed to consider current developments in field. Selection of current subjects and publications dealing with tumor viruses, oncogenesis, development, and cellular regulation. S/U or letter grading.

M257. Introduction to Toxicology. (4) (Same as Pharmacology M257) Requisite: Pharmacology M241, Biochemistry and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems.

258. Pathologic Changes in Toxicology. (4) (Same as Pharmacology M258) Designed to give students experience in learning normal histology of tissues which are major targets of toxic and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system).

260. Immunopathology. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: Microbiology 261. Advanced information for graduate and advanced undergraduate students regarding immune system anatomy, lymphophic development, acute and chronic inflammation, hypersensitivity, and autoimmunity. Letter grading.

262. Cytogenetics and Genomics. (3) Lecture, three hours. Comprehensive guide so students gain sufficient knowledge in conventional and state-of-art cytogenetics and genomic principles and techniques and their utility in clinical and research applications. Focus on relationship between various chromosomal and genomic abnormalities in humans as identified by basic and advanced technologies such as fluorescence in situ hybridization (FISH), chromosomal microarray analysis (CMA), and next-generation sequencing (NGS). All aspects of molecular cytogenetics and cytogenetics through didactic teaching sessions, journal clubs, and interactive discussions. S/U or letter grading.

270. Basic and Clinical Aspects of Developmental Hematology. (4) Lecture, two hours. Graduate- and postgraduate-level course that covers broad range of topics 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, paroxysmal nocturnal hemoglobinuria, myelodysplastic syndrome, Fanconi Anemia, Dyskeratosis Congenita, Paroxysmal Nocturnal Hemoglobinuria, flow cytometry, and research approaches to study bone marrow failure syndromes. Students will complete discussion of two journal articles per meeting—one clinical and one basic/translational. Students present at least one journal article and lead group discussion. S/U or letter grading.


296. Research Topics in Pathology. (1 to 2) Research group meeting, one to two hours. Limited to department graduate students. Advanced study and analysis of current topics in pathology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Individual research with members of the staff or of other departments, the latter for purpose of supplementing programs available in department. S/U grading.


PEDIATRICS
David Geffen School of Medicine
22-412A Marion Davies Children’s Center
Box 951752
Los Angeles, CA 90095-1752

Pediatrics
310-825-5095

Sherin U. Devaskar, MD, Executive Chair
Peter G. Szilagyi, MD, MPH, Executive Vice Chair and Vice Chair, Research

Overview
For first year medical students, exposure to pediatrics starts with the early authentic experiences and the activities of the pediatric interest group.

For second-year medical students, the required four-week clinical clerkship in pediatrics is offered at seven sites: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, Olive View-UCLA, UCLA, and UCLA Santa Monica medical centers; and Miller and UCLA Mattel children’s hospitals.

In their third year, it is anticipated that many medical students participate in research projects in the department of pediatrics before starting their fourth year where they can further their pediatric knowledge and clinical experiences by choosing in-depth subspecialty electives and subinternships offered by department.

For more details on the Department of Pediatrics and courses offered, see the department website.

Pediatrics

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1 to 2) Tutorial, to be arranged. Enrolled corequisite: 100H. 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. 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.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. 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.

199. Directed Research in Pediatrics. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course
M215. Interdepartmental Course: Tropical Medicine. (2) (Same as Medicine M215 and Pathology M215.) Lecture, two and one half hours. Preparation: basic courses in microbiology and parasitology of infectious diseases in School of Medicine or Public Health. Study of current knowledge about diseases prevalent in tropical areas of 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.

PHARMACOLOGY
See Molecular and Medical Pharmacology

PHILOSOPHY
College of Letters and Science
321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451

Ph.D. (to be arranged)

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)
Pamela Hieronymy, PhD
David B. Kaplan, PhD (Hans Reichenbach Professor of Scientific Philosophy)
Gavin Lawrence, DPhil
Calvin G. Normore, PhD (Brian P. Copenhaver Professor)
Michael A. Rescorla, PhD
Sherrilyn Roush, PhD
Seana Shiffrin, JD, DPhil (Pete Kameron Professor of Law and Social Justice)
Sheldon R. Smith, PhD

Professors Emeriti
Robert Merrihew Adams, PhD
Joseph Almog, DPhil
Brian Copenhaver, PhD (Steven F. and 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

Senior Lecturer
Andrew Hsu, PhD

Lecturer
Steven R. Levy, PhD

Adjunct Assistant Professor
Janelle DeWitt, PhD

Overview
Philosophy reflects on big questions, such as how we should 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, assumptions, foundations, and methodologies. Indeed the methodology of philosophy and its concerns are themselves subjects of philosophical inquiry.

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 clear, exact, and free of the rhetoric 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

Entry to the Major

Transfer Students
Transfer applicants to the Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one philosophy of mind or skepticism and rationality course, one ethical theory course, one symbolic logic course, and one additional philosophy course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Four lower-division courses, including Philosophy 7 or 21, 22, 31, and one other lower-division philosophy course.

The Major
Required: Thirteen upper-division (100 series) or graduate (200 series) philosophy courses (52 units), including Philosophy 100A, 100B, 100C. Seven of the 13 courses must be distributed among the groups into which the undergraduate and graduate courses are divided—history of philosophy (numbered 101–119, 201–219); logic, semantics and philosophy of science (120–139, 220–239); ethics and value theory (150–169, 240–259); and metaphysics and epistemology (170–187, 270–289). Students must take two courses in each of three of the groups and one course in the remaining group.

Honors Program
Students must satisfy the honors directed study requirement by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper-division philosophy courses supervised by the instructors of those courses.

Policies

The Major
Contract courses (199) may be applied toward the major but not toward a group requirement. A maximum of 8 units of course 199 may be applied toward the major but not toward a group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement.

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 have (1) 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; 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 observation of a Philosophy 199 course in which they produce a substantial paper that represents an original piece of research or its equivalent.

Exemplary 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 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 is original philosophical research, and the PhD 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.

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.

• Philosophy PhD/Juris 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 man, laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heraclitus, the Pythagoreans, Parmenides, Empedocles, and Greek atomists, during first two thirds of course and on Socrates and some earlier works of Plato in last few weeks. P/NP or letter grading.
2. Introduction to Philosophy of Religion. (5) Lecture, four hours; discussion, one hour. Introductory study of such topics as nature and grounds of reli-
gious belief, relation between religion and ethics, na-
ture and existence of God, problem of evil, and what
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3. Historical Introduction to Philosophy. (5) Lecture,
three hours; discussion, two hours. Historical intro-
duction to Western philosophy based on classical
texts dealing with major problems, related thematically
and studied in chronological order: properties of ra-
tional argument, existence of God, problem of knowl-
dge, nature of causality, relation between mind and
body, possibility of justice, and others. P/NP or letter
grading.

4. Philosophical Analysis of Contemporary Moral
Issues. (5) Lecture, three hours; discussion, one hour.
Critical study of principles and arguments advanced in
discussion of current moral issues. Possible topics in-
clude revolutionary violence, rules of warfare, sexual
morality, right of privacy, punishment, nuclear warfare
and deterrence, abortion and mercy killing, experi-
mentation with human subjects, rights of women.
P/NP or letter grading.

5. Philosophy in Literature. (5) Lecture; three hours;
discussion, one hour. Philosophical inquiry into such
themes as freedom, responsibility, guilt, love, self-
knowledge and self-deception, death, and meaning of
life through examination of great literary works in
Western civilization. P/NP or letter grading.

6. Introduction to Political Philosophy. (5) Lecture,
three hours; discussion, one hour. Study of some clas-
sical or contemporary works in political philosophy.
Questions to be discussed include What is jus-
tice? Why obey the law? What form of government is
best? 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. Study of selected
problems concerning the character and reli-
ability of scientific understanding, such as nature of
scientific theory and explanation, reality of theoretical
entities, inductive confirmation of hypotheses, and oc-
currence of scientific revolutions. Discussion at non-
technical level. May be repeated for credit with cons-
tent change. P/NP or letter grading.

8. Introduction to Philosophy of Science. (5) Lecture,
three hours; discussion, one hour. Introductory study
of philosophical issues about nature of the mind and
its relation to the body; including materialism, func-
tionalism, behaviorism, determinism and free will, na-
ture of psychological knowledge. P/NP or letter
grading.

four hours; discussion, one hour. Nature of arguments:
how to analyze them and assess soundness of rea-
soning. Logical fallacies. Common fallacies that often
occur in arguments discussed in light of what counts
as good deductive or inductive inference. Other topics
include use of language in argumentation to arouse
effects 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. Freshman Seminar. (1) Seminar, one hour.
Discussion of and critical thinking about topics of
current intellectual importance, taught by faculty
members in the belief of expertise and illuminating
many paths of discovery at UCLA. P/NP grading.

101. Skepticism and Rationality. (5) Lecture,
four hours; discussion, one hour. Can we know anyth-
ing 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. Preparation: En-
tered 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 22.
Introduction to major ethical theories. May be
repeated for credit with consent of instructor.

22W. Introduction to Ethical Theory. (5) Lecture,
three hours; discussion, one hour. Enrolled requisite:
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 22.
Introduction to major ethical theories. May be
repeated for credit with consent of instructor.

100C. History of Modern Philosophy, 1650 to 1800.
(4) Lecture; three hours; discussion, one hour. Prepa-
ration: one philosophy course. Strongly recommended
requisite: course 100B. Courses 100A, 100B, and
100C should be taken in immediately successive
quarters. Survey of development of metaphysics
and epistemology from Kant to early modern period,
including Locke and/or Berkeley, Malebranche and/or
Leibniz, and culminating in Hume and Kant. Topics
may include views of (theoretical) philosophers on
the period on mind and body, causality, ex-
istence of God, skepticism, empiricism, limits of
human knowledge, and philosophical foundations of
modern science. P/NP or letter grading.

Group I: History of Philosophy

M101A. Plato—Earlier Dialogues. (4) (Same as Clas-
sics M144A.) Lecture; three hours; discussion, one
hour. Preparation: one philosophy course. Study of
selected topics in early and middle dialogues of Plato.
P/NP or letter grading.

M101B. Plato—Later Dialogues. (4) (Same as Clas-
sics M146B.) Lecture; three hours; discussion, one
hour. Preparation: one philosophy course. Study of
selected topics in middle and later dialogues of Plato.
P/NP or letter grading.

M102. Aristotle. (4) (Same as Classics M147.) Lect-
ure, three hours; discussion, one hour. Preparation:
one philosophy course. Study of selected works of Ar-
istotle. P/NP or letter grading.

M103A. Ancient Greek and Roman Philosophy. (4)
(Same as Classics M145A.) Lecture; three hours.
Study of some major texts in classical philosophical
literature, including those of pre-Socratics, Plato, Aristotle,
and the Stoics. P/NP or letter grading.

M103B. Ancient Greek Philosophy. (4) (Same as Clas-
sics M145B.) Lecture; three hours; discussion, one
hour. Preparation: one from 100A, M101B, M102, or
M103A. Study of some major texts in Greek philosophical
literature, including those of pre-Socratics, Plato, Aristotle,
and the Stoics. Topics include central issues in metaphysics
and epistemology. May be repeated for credit with consent of
instructor. P/NP or letter grading.

104. Topics in Islamic Philosophy. (4) Lecture,
two to four hours; discussion, one hour (when scheduled).
Preparation: one philosophy course. Development of
philosophy within orbit of Islam from beginning of in-
ternationalism of Islam to the highpoint of the ancient
philosophy to period of hegemony of Ottoman Empire. Figures examined may
vary but usually include many of al-Kindi, Ibn Sina
(Avicenna), al-Ghazali, ibn Maimon (Maimonides),
Ibn Rushd (Averroes), and Suhrawardi. Topics include
selected problems concerning the character and reli-
ability of scientific understanding, such as nature of
scientific theory and explanation, reality of theoretical
entities, inductive confirmation of hypotheses, and oc-
currence of scientific revolutions. Discussion at non-
technical level. May be repeated for credit with consent of
instructor. P/NP or letter grading.

105. Later Medieval Philosophy. (4) Preparation: one
philosophy course. Study of medieval philosophy from
the time of the great scholastics to the end of the
medieval period. May be concurrently scheduled with
courses in Introduction to Ethical Theory or Social
philosophy. P/NP or letter grading.

106. Later Medieval Philosophy. (4) Lecture,
two to four hours; discussion, one hour. Preparation:
one philosophy course. Study of medieval philosophy from
the time of the great scholastics to the end of the
medieval period. May be concurrently scheduled with
courses in Introduction to Ethical Theory or Social
philosophy. P/NP or letter grading.

107. Topics in Medieval Philosophy. (4) Lecture,
two to four hours; discussion, one hour. Preparation:
one philosophy course. Study of medieval philosophy from
the time of the great scholastics to the end of the
medieval period. May be concurrently scheduled with
courses in Introduction to Ethical Theory or Social
philosophy. P/NP or letter grading.

108. Hobbes. (4) Seminar, three hours; discussion,
one hour. Preparation: one philosophy course. History
of philosophy, emphasizing the political thought of
Thomas Hobbes, with attention to its relevance to contempo-
rary political philosophy. P/NP or letter grading.

109. Descartes. (4) Seminar, three hours; discussion,
one hour. Preparation: one philosophy course. Study of
the philosophy of René Descartes, with attention to
its relevance to contemporary political philosophy. P/NP or letter grading.
mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C209. P/NP or letter grading.

C110. Spinoza. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C210. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

C111. Leibniz. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 21. Study of philosophy of Leibniz. May be concurrently scheduled with course C211, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

C112. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C212. P/NP or letter grading.

C114. Hume. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics from metaphysics, epistemology, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C214. P/NP or letter grading.

C115. Kant. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 21 or 22. Study of Kant's views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C215. P/NP or letter grading.

116. 19th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in 19th-century thought.

117. Late 19th- and Early 20th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in work of one or more of following philosophers: Bolzano, Frege, Husserl, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

118. Kierkegaard. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the texts.

118B. Kierkegaard and Philosophy of Religion. (4) (Same as Religion M118B.) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Study of selected works of Kierkegaard on philosophy of religion, with emphasis on interpretation of texts. P/NP or letter grading.

C119. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected philosophers or themes in history of philosophy from different periods (e.g., ancient and medieval, medieval and early 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. Several general topics discussed in context of actual episodes in development of natural sciences. May be repeated for credit with consent of instructor.

125. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 31. An introduction to contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.

126. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Discussion of topics in philosophy of social sciences (e.g., methods of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, explanation and prediction, nature of social laws).

C127A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics. Semantical concepts: class, proposition, synonymy, and analyticity; modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228A. P/NP or letter grading.

C127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Prerequisite: course 31. Course C127A not requisite to C127B. Selected topics similar to those considered in course C127A but at a more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228B. P/NP or letter grading.

C127C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Prerequisite: course 31. Recommended: course C127A or C127B. Selected topics similar to those considered in course C127B, but with focus on contemporary figures. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228C. P/NP or letter grading.

C128. Topics in Philosophy of Mathematics. (4) (Formerly numbered 128.) Lecture, four hours. Prerequisites: courses 31, 132, and preferably one additional logic course. Introduction to philosophy of mathematics. Survey of philosophy of mathematics from Kant to Hilbert. Study of content and development of three main schools of logicism, formalism, and intuitionism in their historical context. Study of original texts of philosophy such as Kant, Frege, and Russell, and how their philosophy interacted with contemporary developments in mathematics and logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C228C. P/NP or letter grading.

129. Philosophy of Psychology. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one 4-unit psychology course, one philosophy course. Philosophy of psychology. Selected philosophical issues arising from psychological theories. Nature of perception and issues about perceptual psychology and development of important types of representation (e.g., of body, cause, agency) in early childhood. Relevance of computer simulation to accounts of thinking and meaning; relations between semantical and learning theories. Study of selected works of psychologists. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C229. 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. Philosophy of space and time. May be repeated for credit with consent of instructor. P/NP or letter grading.


133. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Possible topics include formal theories, definitions, alternative theories of descriptions, many-valued logics, deviant logics. May be repeated for credit with consent of instructor. P/NP or letter grading.

133B. Probability and Inductive Logic. (4) Lecture, three hours; discussion, one hour (when scheduled). Prerequisite: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. May be concurrently scheduled with course C225. P/NP or letter grading.

133C. Topics in Probability and Inductive Logic. (4) Lecture, three hours; discussion, one hour (when scheduled). Prerequisite: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include learning theory, statistical inference, causal inference, artificial intelligence, non-probabilistic approaches to inductive logic, or deeper study of topics from course C133B. May be repeated for credit with consent of instructor. P/NP or letter grading.

M134. Introduction to Set Theory. (4) (Same as Mathematics M114S.) Lecture and discussion, one hour. Preparation: two philosophy courses. Introduction to contemporary set theory, with emphasis on the axioms of Zermelo-Fraenkel set theory and first-order logic. Introduction to formal language, formal deductive systems, and models. Compactness and completeness theorems that concern complexity of notions of logical consequences. P/NP or letter grading.

135. Introduction to Metalogic. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Strongly recommended requisite: course 132 (or Mathematics 33A or 33B). Metatheoretical logic and first-order logic. Introduction to formal language, formal deductive systems, and models. Compactness and completeness theorems that concern complexity of notions of logical consequences. P/NP or letter grading.

M136. Modal Logic. (4) Lecture, four hours. Prerequisite: courses 31 (enforced). Introduction to model theory of modal logic (family of systems that includes logics of possibility and necessity, temporal logics, epistemic logics, and logics of actions/programs). Topics include invariance results, definability results, completeness results (e.g., Gödel's completeness theorem), completeness results (e.g., Tarski's completeness theorem), and data visualization. P/NP or letter grading.

138. Philosophy of Visual Representation. (4) Lecture, four hours. Preparation: one philosophy course (in philosophy of mind or language recommended). Investigation of philosophical questions relating to visual representation. Possible topics include visual perception, mental imagery, image versus language, semiotic diagrams. Selected topics: indexical terms, semantical paradoxes, 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. Prerequisite: 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-C151C. History of Ethics. (4–4–4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Courses may be taken independently for credit. P/NP or letter grading. 151A. Selected Classics in Ancient Ethical Theories: Plato, Aristotle, C151B. Modern. Intensive study of Kant's
15A-157H. History of Political Philosophy. (4–4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. May be repeated for credit with consent of instructor. 15A. Reading and discussion of classic works in earlier political theory, especially those by Hobbes, Locke, Rousseau, and Marx. 15B. 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. Topics may include aesthetic value and nature of beauty, the relation of aesthetic experience and rationality, aesthetic judgment, and the autonomy of aesthetic response. May be repeated for credit with consent of instructor. P/NP or letter grading.

166. Philosophy of Law. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination, through study of recent philosophical writings, of topics such as nature of law, relation of law and morality, 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. May be repeated for credit with consent of instructor. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: two philosophy courses. 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.


177A. Existentialism. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of methods, problems, and views of some of the following: Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Sade, Camus. 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, Sartre, Sade, Camus, Rorty. 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 phenomenological method of approaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, 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 philosophy. Appropriate parallels to social concepts 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. Study of various concepts employed in understanding human action. Topics may include rational choice, desire, intention, willingness, intentionality, and self-control. May be repeated for credit with consent of instructor. P/NP or letter grading.


182. Elements of Metaphysics. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Study of basic metaphysical questions; nature of physical world, of minds, and of universals; and answers provided by alternative systems (e.g., phenomenalism, materialism, dualism). P/NP or letter grading.

183. Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Problem-oriented study of contemporary classics of epistemology on topics such as skepticism, justification, foundationalism, epistemic intuitions, tracking, closure, relativism, intrinsicism, externalism, and others. May be repeated for credit with consent of instructor. P/NP or letter grading.

184. Topics in Metaphysics. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Intensive investigation of one or two topics in metaphysics, such as personal identity, nature of disposi- tions, 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. Study of writings of one or more major modern philosophers (e.g., Russell,
M187. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) (Same as Gender Studies M110C.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Gender Studies M109 or consent of instructor. Gender Studies 10; for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy. Critical study of concepts and principles that underpin definitions of women’s roles and liberation. Philosophical approach to feminist theories. 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 Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188A. 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.

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 students. May not be applied toward departmental honors. May not 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. Designed as an individual honors lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May not be applied toward departmental honors. May be repeated for credit. Limited to maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Philosophy. (4) Seminar, one hour; discussion, three hours. Variable topics; consult Schedule of Classes or “Department Announcements” for topic to be offered in specific term. Reading, discussion, and development of culminating project. May be repeated for credit with consent of instructor. P/NP or letter grading.

198A-198B. Honors Research in Philosophy. [2-2] Tutorial, two hours. Limited to junior/senior philosophy honors program students. Each course to be taken in conjunction with one-semester independent philosophy course, either concurrently or in subsequent term, under direct supervision of lecture course instructor. Advanced honors related to lecture course; full-year reading, and preparation of 12- to 15-page paper representing original research. Courses 198A and 198B must be taken in conjunction with two different lecture courses, and both must be taken to satisfy departmental honors requirement. 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 and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Philosophy. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or research project required. Up to 8 units may be applied toward degree requirements, but no 199 course may be substituted for course in one of four groups on basis of similarity of subject matter. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

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 students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics. Letter grade (200A, 200B) and S/U or letter grade (200C) grading.

Group I: History of Philosophy

201, Plato. (4) Seminar, four hours. Study of later dialogues. S/U or letter grading.


203. Seminar: History of Ancient Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

206. Topics in Medieval Philosophy. (4) Lecture, four hours. Study of philosophy and theology of one or several medieval philosophers such as Augustine, Anselm, Abelard, Aquinas, Scotus, or other representative of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.

207. Seminar: History of Medieval and Renaissance Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

208. Hobbes. (4) Lecture, three hours; discussion, one hour. Philosophy as one of Hobbesian philosophy course. Hobbes’ political philosophy, especially Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C108. S/U or letter grading.

209. Descartes. (4) Lecture, four hours; discussion, one hour. Study of works of Descartes, with discussions of issues such as problem of skepticism, foundations of knowledge and evidence, the relation of mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C109. S/U or letter grading.

210, Spinoza. (4) Lecture, three hours; discussion, one hour (when scheduled). Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110. 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 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 philosophies of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C112. S/U or letter grading.

214, Hume. (4) Lecture, three hours; discussion, one hour. Selected topics in philosophy of Hume. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114. S/U or letter grading.

215, Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 212 or 21; Study of Kant’s views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C115. S/U or letter grading.

216, 19th-Century Philosophy. (4) Lecture, four hours. Topics in 19th-century philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

219, Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Study of selected philosophers or themes in history of philosophy from each of the periods (e.g., including certain medieval, early modern). May be repeated for credit with consent of instructor. Concurrently scheduled with course C119. S/U or letter grading.

220, Seminar: Topics in History of Philosophy. (4) Seminar, three hours. Selected problems and philosophers which may be from different periods. May be repeated for credit with consent of instructor. S/U or letter grading.

Group II: Logic, Semantics, and Philosophy of Science


221B. History of Set Theory. (4) Lecture, four hours. Development of concept of set and axiomatic set theory by examining selected writings of Frege, Cantor, Russell, Zermelo, Gödel, and several others. Topics include the significance of Cantor’s Continuum hypothesis, inaccessible numbers. Formalization of set theory; Zermelo/Fraenkel; von Neumann–Gödel theory. May be repeated for credit with consent of instructor. S/U or letter grading.


223. Topics in Philosophy of Mathematics. (4) Lecture, four hours. Introduction to philosophy of mathematics. Survey of philosophy of mathematics from Kant to Hilbert. Study of content and development of main schools of logicism, formalism, and intuitionism in their historical context. Study of original texts of philosophy such as Kant, Frege, and Russell, and how their philosophy interacted with contemporary developments in mathematics and logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C128. S/U or letter grading.

224, Philosophy of Physics. (4) Seminar, three hours. Selected philosophical topics related to physical theory, depending on interests and background of participants, including space and time, special and quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor. S/U or letter grading.

225, Probability and Inductive Logic. (4) (Formerly numbered 225K) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include propositions, 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.

722 / Philosophy
226. Topics in Mathematical Logic. (4) Lecture, four hours. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

227. Philosophy of Social Science. (4) Lecture, four hours. Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relation between social processes and individual psychology, logic of explanation in social sciences, determinism and spontaneity in interaction 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 similar to those considered in course C228A but at more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127B. S/U or letter grading.

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.

229. Seminar: Critical Thinking. (4) Seminar, three hours. Selected topics in history, theory, and pedagogy of critical thinking. May be repeated for credit with consent of instructor. S/U or letter grading.

230. Seminar: Logic. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

231. Seminar: Intensional Logic. (4) Seminar, four hours. Topics may include logic of sense and denotation, modal logic, logic of demonstratives, epistemic logic, and modal logics of 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. May not be used to satisfy special area requirements. 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. Requisites: course 150 or C156 or 157A or 157B 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.

244. Topics in Value Theory: Rationality and Action. (4) Seminar, three hours. Selected topics on normative issues in practical rationality or philosophy of action. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of will, and decision theory. May be repeated for credit with consent of instructor. S/U or letter grading.

C244B. Topics in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of 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.

C245. 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. May be concurrently scheduled with course C153B. S/U or letter grading.

C253B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, selected problems, and contemporary issues in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C153B. S/U or letter grading.

254. Legal Theory Workshop. (1 to 8) Seminar, three hours. Students engage with work in progress on philosophical issues in law of leading scholars from around country. Preparation of works in progress by visiting scholars. S/U or letter grading.

255. Seminar: Aesthetic Theory. (4) Seminar, four hours. Examination of topics such as concept of law, nature of justice, problems of interpretation of works in progress by visiting scholars every two weeks. Study by students of papers to be presented to gain background in relevant topics and to prepare for speakers’ presentations. Preparation of student papers to class for discussion. Substantial analytical paper required. Concurrently scheduled with Law 555. In Progress (254A) and S/U or letter (254B) grading.

256. Seminar: Jurisprudence. (4) Seminar, four hours. Selected topics. May be repeated for credit with consent of instructor. S/U or letter grading.

M256. Topics in Legal Philosophy. (4) (Same as Law M217.) Lecture, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor. S/U or letter grading.

M257. 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.

M257A-M257B. Philosophy Legal Theory. (1 to 8 each) (Same as Law M524.) Seminar, two hours. Course M257A is enforced requisite to M257B. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. In Progress (M257A) and S/U or letter (M257B) grading.

258. Contemporary Philosophy of Law. (4) Seminar, three hours. Limited to graduate students. Recent contributions to theoretical literature on contract law. Possible topics include purpose or function of contract law, relationship of contracts to promises, whether fault should play larger (or smaller) role in contract law, remedial approaches to breach including larger role for unjust enrichment, and contract law’s treatment of fraud and deception. Readings from legal and philosophical literature. S/U or letter grading.

259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. May be taken for units in quarters in which students present their own research. May be repeated for credit with consent of instructor. S/U or letter grading.

Group IV: Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

272. Topics in Philosophy of Mind and Language. (4) Seminar, three hours. Selected topics in philosophy of mind and/or language. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.

275. Human Action. (4) Preparation: two upper-division philosophy courses. Examination of theories, concepts, and problems concerning human actions. Topics may include analysis of intentional actions; determinism and freedom; rationalization of intentional actions. May be repeated for credit with consent of instructor.

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. Seminar: Philosophy of Perception. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

295. Philosophy of Psychoanalysis. (4) Seminar, three hours. Examination of the nature and validity of psychoanalytic explanations and interpretations, psychoanalysis and language, metapsychological concepts such as the unconscious, ego, id, superego, defense mechanisms, and psychoanalytic conception of human nature. S/U or letter grading.

296. Philosophy of Psychology. (4) Seminar, four hours. Relevance of computer simulation to accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology. S/U or letter grading.

297. Seminar: Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

298. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

299. Seminar: Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

Special Studies

299. Workshop: Philosophy of Language. (2 or 4) Seminar, two hours. Ongoing discussion of current issues in philosophy of language based on contemporary texts and current research. Presentations of ideas
by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U or letter grading.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U or letter grading.

292. Philosophical Research in History of Philosophy. (2 to 4) Seminar, two hours. Prerequisite: graduate standing or consent of instructor. Ongoing discussion of current issues in history of philosophy based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

299. Seminar: Philosophical Research. (4) Seminar, three hours. Preparation: advancement to candidacy. Presentation of ongoing research by graduate students or faculty members. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. May be repeated for credit with consent of instructor. S/U grading.

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 College Philosophy. (2 to 4) Seminar, to be arranged. Seminars, workshops, and apprentice teaching. Selected topics, including evaluation scales, various teaching strategies and their effects, and other topics in college teaching. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Property 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) Tutorial, to be arranged. Preparation for MA comprehensive examination or PhD oral qualifying examinations. S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. May be repeated for credit. S/U grading.

Wesley C. Campbell, PhD, Vice Chair, Resources
Jay Hauser, PhD, Vice Chair, Academic Affairs
Alice E. Shapley, PhD, Vice Chair, Astronomy

Faculty Roster

Professors
Katsuaki Ariasaka, PhD
Zvi Bern, PhD
Dolores Bozovic, PhD
Stuart E. Brown, PhD
Troy A. Carter, PhD
Sudip Chakravarty, PhD
Eric D’Hoker, PhD
Michael P. Fitzgerald, 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 S.axon Presidential Professor of Physics)
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. Putterman, PhD
Brian C. Regan, PhD
James Rosenzweig, PhD
David Saltzberg, PhD
Alice E. Shapley, PhD
Tommaso L. Treu, PhD
Yaroslav Tserkovnyak, PhD
Jean L. Turner, PhD
Vladimir V. Vassiliou, PhD
Kang L. Wang, PhD (Raytheon Company Professor of Electrical Engineering)
Giovanni Zocchi, PhD

Professors Emeriti
Ernest S. Abers, PhD
Eric E. Becklin, PhD
Robijn F. Bruinsma, PhD
Charles D. Buchanan, PhD
W. Gilbert Clark, PhD
John M. Cornwall, PhD
Ferdinand V. Coroniti, PhD
Robert D. Cousins, PhD
Sergio Ferrara, PhD
Christian Fronsdal, PhD
Walter N. Gekelman, PhD
George Gruner, PhD
Roy P. Hadlock, 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
E. T. Tomboulis, PhD
Roger K. Ulrich, PhD
Gary A. Williams, PhD
Alfred Y. Wong, PhD
Chun Wa Wong, PhD
Edward L. Wright, PhD (David S.axon Presidential Professor Emeritus of Physics)
Benjamin M. Zuckerman, PhD

Associate Professors
Michail Bachitsis, PhD
Wesley C. Campbell, PhD
Paul Hamilton, PhD
Zhongbo Kang, PhD
Smadar Naoz, PhD (Howard and Astrid Preston Term Professor of Astrophysics)
Ni Ni, PhD
Rahul Roy, PhD

Assistant Professors
E. Paulo Alves, PhD
Tuan H. Do, PhD
Thomas T. Dumitrescu, PhD (Mani L. Bhaumik Presidential Endowed Professor of Theoretical Physics)
Christopher Gutiérrez, PhD
Alvine C. Kamaha, PhD
Anshul Kogar, PhD
Erik A. Petigura, PhD
Qianhui Shi, PhD
Mikhail P. Solon, PhD
Shenshen Wang, PhD

Adjunct Professor
Slava G. Turyshev, PhD

Overview

Since the time of the ancient Greeks, a natural affinity has existed between astronomy and physics, and the intellectual development of the two disciplines has often proceeded synergistically. Newton’s discovery of the laws of mechanics and universal gravitation not only explained motion on Earth, but brought the heavens and Earth into a single quantitative framework in which both are governed by the same laws. The revolutionary discoveries of twentieth-century physics—quantum mechanics and nuclear physics—were rapidly adopted by astronomers to interpret the spectroscopic observations of the stars and to construct accurate models of stellar structure. Einstein’s general theory of relativity predicted the expansion of the universe and that most awesome compaction of matter—the black hole.

Today astronomers study the accretion of matter onto supermassive black holes in quasars and search the most distant regions of the universe to learn about the exotic physical conditions that existed when the universe’s expan-
sion was only fractions of a second old. By measuring the gravitational interactions on distant scales from galaxies to the vast superclusters of galaxies, astronomers have concluded that most of the universe’s matter is dark or nonluminous; physicists have speculated that this dark matter may consist of yet undiscovered exotic particles that are predicted by the most advanced theories of elementary particle physics.

Department of Physics and Astronomy faculty members and students are able to study the universe in the holistic manner that is demanded by the breadth of these two disciplines.

Undergraduate Study

Astronomy Courses
The department offers general courses to all UCLA students, 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 systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 31and 32 series).

Students of junior and senior standing in Physics or 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 requirement 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 adviser.

Physics 5A, 5B, 5C form a one-year sequence of courses in basic physics for students in the biological and health sciences.

Any two or more courses from Physics 1A, 1AH, and 5A, are limited to a total of 6 units of credit.

Undergraduate Majors

Astrophysics BS

Learning Outcomes
The Astrophysics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Understanding and analysis of phenomena in astronomy and astrophysics including planets, stars, galaxies, and cosmology
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

Entry to the Major

Transfer Students
Transfer applicants to the Astrophysics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two astrophysics courses, two years of calculus, and 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.

Requirements

Preparation for the Major

Required: Astronomy 81; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 32; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B; and one course from Computer Science 30, 31, or Program in Computing 10A, or demonstrated ability to program.

Recommended: Chemistry and Biochemistry 20A.

The Major


Honors Program
In addition to completing all courses required for the major, students must complete two terms of Astronomy 199.

Policies

The Major
Each course taken to fulfill any of the requirements for the major must be taken for a letter grade.

Honors Program
Senior majors in Astrophysics with a 3.5 grade-point average in all astronomy, mathematics, and physics courses are eligible for the honors program in astrophysics. 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 coursework to fit 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

Entry to the Major

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, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors.

Requirements
Preparation for the Major
Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 32; Chemistry and Biochemistry 20A, 20B; Life Sciences 7A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. Recommended: Physics 18L.

The Major
Required: Physics 105A, 110A, 110B, 112, 115A, 115B, M180G, C187A, C187B; three additional upper-division elective courses selected from one group or among the three groups.


Group 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 16SA.

Honors Program
In addition to completing all courses required for the major, students must complete two 4-unit terms of Physics 199.

Policies
The Major
Students will be advised when a course has additional lower-division requirements. Each course taken to fulfill any of the requirements for the major must be taken for a letter grade. An overall 2.0 grade-point average in all upper-division courses is required.

Honors Program
Senior majors in Biophysics with a 3.5 grade-point average in upper-division major courses are eligible for the honors program in biophysics. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively.

Physics BS
The Physics BS major should be pursued if students intend to continue toward the PhD in Physics.

A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Learning Outcomes
The Physics major has the following learning outcomes:

Physics BA
The Physics BA major is intended to provide students with a strong background in physics, yet allow students flexibility to study other fields as well. It should be of particular interest to students who want to double major or who want to teach science. Students who intend to continue work toward the PhD in Physics are advised to pursue the Physics BS.

A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Learning Outcomes
The Physics major has the following learning outcomes:
• Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
• Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
• Ability to critically analyze and interpret data in order to draw valid scientific conclusions
• Ability to present clear written and oral accounts of scientific results
• Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

Entry to the Major

Transfer Students

Transfer applicants to the Physics BA major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one general chemistry course for majors.

Refer to the UCLA Transfer Admission Guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 32; Chemistry and Biochemistry 20A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B; Program in Computing 10A or Computer Science 30 or 31.

The Major


Policies

Each course taken to fulfill any of the requirements for the major must be taken for a letter grade.

A C average in the upper-division physics courses is required.

Graduate Majors

Astronomy and Astrophysics MAT

Requirements

Official, specific degree requirements are detailed in 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 and Astrophysics MS, PhD

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

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

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

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 the Universe. (5) Lecture, three hours; laboratory, two hours. Not open to students with credit for or currently enrolled in course 81 or 82. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences. Introduction to vast range of cosmic phenomena including planets in our solar system and beyond, stars, supernova explosions, black holes, galaxies, and universe as whole. P/ NP or letter grading.

4. Black Holes and Cosmic Catastrophes. (4) Lecture, three hours; discussion, one hour. No mathematical preparation beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences. Introduction to exotic cosmic phenomena known as black holes, and their bizarre effects on fabric of space and time. Some black holes form in violent events that terminate lives of stars, while formation of much more massive black holes at centers of galaxies is still mysterious. Covers cosmic catastrophes including stellar explosions and mergers, supernovae, gamma-ray bursts, and gravitational waves. Discussion of detection of black holes in popular culture. P/NP or letter grading.

5. Life in Universe. (4) Lecture, three hours; discussion, one hour. No special preparation required. Topics include formation and evolution of Earth and Sun, life on Earth and elsewhere, and origins of life, solar system, habitability, extra-solar planets, search for intelligent life in universe, and interstellar travel. Draws primarily from astronomy and biology but includes some chemistry, geology, and physics. P/NP or letter grading.

6. Cosmology: Origin, History, and Fate of Universe. (4) Lecture, three hours; discussion, one hour. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to majors in physical sciences. Cosmology is study of large-scale properties of universe. Consideration of origin, fate, composition, and shape of universe, and origin and evolution of structure seen in universe today. Addresses these questions through study of Big Bang, dark matter, dark energy, expansion of universe, and other cosmic phenomena. P/NP or letter grading.

7. 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.

81. Fundamentals of Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomores and upper-division students. Students develop understanding of fundamental physical concepts such as gravity and radiation, and how these concepts connect to stars and planets. Overview of stars and stellar evolution, and tools and methods important to astrophysics such as telescopes and spectroscopy. P/NP or letter grading.

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology. (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). This course introduces the basic physics needed to understand 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. Lower-Division Seminar: Cosmic Evolution. (2) Seminar, two hours. Limited to freshmen. Varied 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.

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-divi-
Upper-Division Courses

115. Introduction to Galactic Astronomy. (4) Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomores and upper-division students. Introduction of principles important for understanding complex evolution of Milky Way galaxy. Topics include interstellar medium, star and planet formation, and exoplanets. Examination of basic physical processes governing compact stellar remnants such as white dwarfs, neutron stars, and black holes. Overview of structure and properties of Milky Way galaxy. P/NP or letter grading.

117. Introduction to Extragalactic Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 127. Stars from Birth to Death. (4) Lecture, three hours; discussion, one hour. Requisite: courses 81, 115, 127. In-depth exploration into lives and deaths of stars. Covers production of energy and physics of stellar interiors and atmospheres. Topics include star formation, variability and evolution. Includes significant exploration of nuclear physics and advanced stages of fusion. Covers properties and formation of stellar remnants from white dwarfs to black holes. P/NP or letter grading.

140. Galaxies. (4) Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 127. Designed for upper-division Astrophysics and Physics majors. Focus on basic unit of structure in universe: galaxies. Consideration of physics governing their structure and evolution, and how galaxy population has evolved over history of universe. Other topics include Milky Way, stellar dynamics, active galactic nuclei, and galaxy clusters. P/NP or letter grading.

141. Cosmology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115, 117. Designed for upper-division Astrophysics and Physics majors beyond depth exploration of Big Bang model for universe. Examination of what expanding universe is, how cosmologists measure its properties, and how universe has changed since Big Bang. Topics include cosmic expansion, dark matter, inflation, cosmic microwave background, Big Bang nucleosynthesis, and structure formation. P/NP or letter grading.

180. Astrophysics Laboratory. (4) Lecture, two hours; laboratory, four hours. Open to juniors/seniors in astrophysics, physics, or related field. Topics include statistical methods in astrophysics, instrumentation, data reduction, and optics. Laboratory experiments include observations of stars and planets, and other astronomical objects. Emphasis on use of computers for making measurements from two-dimensional astronomical imagery.

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. P/NP grading.

190. Research Colloquia in Astrophysics. (2) Seminar, two hours. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/ laboratory. Discussion of research of faculty members or students with strong understanding methodology in field and/or laboratory equipment. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Astrophysics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors with overall 3.0 grade-point average. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Astronomy. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. 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 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 in area of subject matter. Culminating paper 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 faculty adviser on any suitable research topic in astronomy or astrophysics, culminating in written report at end of second term. S/U (277A) and letter (277B) grading.

278. Special Topics in Astronomy. (2 or 4) Seminar, tutorial. Informal seminar. Open to qualified students. Letter grading. May be repeated for credit. Focus on one of set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.

279. Seminar in Current Astronomical Research. (2) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U grading.


281. Quantum Mechanics for Astrophysics. (4) Lecture, four hours. Designed for departmental graduate students. Quantum mechanical topics in areas of interest for astrophysics applications. Hydrogen atom, radiative transitions, composites, and cosmological spectroscopy including electronic, vibrational, and rotational transition, nuclear reaction theory. Letter grading.


283. Numerical and Statistical Methods. (4) Lecture, three hours. Topics selected by instructor in numerical, statistical, and physical methods of relevance to modern astrophysical research. Topics include Fourier transforms, filtering, and power spectra, numerical algorithms, N-body codes, maximum likelihood, Bayesian inference, and error estimation. Letter grading.

284. Order of Magnitude Astrophysics. (4) Lecture, three hours. Practice in real-time problem solving covering all fields of astrophysics. Topics selected by instructor. Students work together and individually to solve problems on blackboard using basic physics and order of magnitude estimations. Letter grading.


296. Research Topics in Astronomy. (2) Discussion, two hours. Advanced study and analysis of current topics in astronomy. Discussion of current 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. (2) Formerly numbered M297. 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 research and/or other topics and receive detailed feedback from both peers and instructor. May be repeated for credit. S/U grading.
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching 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.
596A. Directed Individual Studies. (4 to 10) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.
596L. Advanced Study and Research at Lick Observatory. (4 to 12) Tutorial, to be arranged. Designed for graduate students who require observational experience, as well as those working on observational problems for their thesis. May be repeated at discretion of department. S/U grading.
599. PhD Research and Writing. (10 to 12) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

Physics

Lower-Division Courses

1AH. Physics for Scientists and Engineers: Mechanics (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisite: Mathematics 11B, 31A, 31B. Enforced corequisite: Mathematics 32A. Recommended corequisite: Mathematics 32B. Enriched preparation for upper-division physics courses. Same material as course 1A but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.
1CH. Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisite: courses 1AH or 1A, 1BH or 1B, 31A, 31B, 32A, 32B. Enforced corequisite: Mathematics 33A. Recommended corequisite: Mathematics 33B. Enriched preparation for upper-division physics courses. Same level 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 requisite: course 1A or 1AH. Enforced corequisite: course 1B or 1BH. Computerized measurements of distance, time, velocity, acceleration, force, mass, and energy. Vectors and transformations; matrices, tensors, and differential forms. Analysis of data and comparison of results to predictions, including least-squares fitting. Concept, 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 requisite: courses 1A or 1AH, 1B or 1BH. Enforced corequisite: course 1C or 1CH. Computerized measurements of voltage, current, resistance, electric circuit analysis, and magnetic field measurements. Enriched preparation beyond that necessary for admission to University 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. As time permits, development of physical ideas placed in cultural and historical perspective. P/NP or letter grading.
10. Physics. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for 1A, 1AH, 1B, 31A, or 31B. Special mathematical preparation beyond that necessary for admission to University 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. As time permits, 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. Suitable for general education students. Focus on topics of 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 energy 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 solar, wind, nuclear, and other fuels. 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 required for their daily lives and what physical processes could produce it. P/NP or letter grading.
17. Modern Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C or 1AH, 1BH, and 1CH. Computerized laboratory course. Photons, black-body radiation, photoelectric effect, uncertainty principle, Bohr atom, Schrödinger equation, hydrogen atom, and selected topics in atomic, solid-state, nuclear, and particle physics. P/NP or letter grading.
18L. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Requisites: courses 1A, 1B, and 1C or 1AH, 1BH, and 1CH. 4AL, 4BL, 17L. 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 great intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
32. Mathematical Methods. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, 1C, or 1AH, 1BH, 1CH. Mathematics 32A, 32B, 33A, Corequisite: Mathematics 33B. Vectors and fields; operators and transformations; matrices, tensors, and differential forms; ordinary differential equations and integral theorems; Fourier transform. P/NP or letter grading.
88. Lower-Division Seminar: Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive expositions of a particular topic based on current research. Consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for a maximum of 4 units. Individual honors contract required. 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 course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99X. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in physics for life sciences majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of problem-solving skills and intuition in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.
99XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in physics for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of problem-solving skills and intuition in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Stu-
dents must be in good academic standing and enrolled in minimum of 12 units (excluding this course).

Upper-Division Courses


105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisite: course 105A. Conserved quantities, collisions and scattering, special relativity, non-inertial reference frames, rigid bodies, coupled oscillators, and normal modes. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH); 110B. Interaction of light with matter; dispersion theory, oscillating strength, widths, molecular scattering. Coherence theory, Kirchhoff formulation of diffraction theory, crystal optics, optical rotation, electro and magneto optical effects. Additional topics of fundamental or current interest. P/NP or letter grading.

110A. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisite: course 32. Electromagnetics and magnetostatics. P/NP or letter grading.

110B. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A. Corequisite: course 105B. Maxwell’s equations, electromagnetic waves, potential and fields, radiation, Lorentz invariance, P/NP or letter grading.


114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A, 105B, Mathematics 32B, 33A, 33B. Vibrating systems and waves in one, two, and three dimensions. Solids, including elements of hydrodynamics and elasticity. 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. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A, 105B, Mathematics 32B, 33A, 33B. Wave mechanics of one-dimensional and three-dimensional systems. Applications to atoms and molecules. P/NP or letter grading.

115B. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 115A, 115B, 115C, 115D. Wave mechanics of one-dimensional and three-dimensional systems. Applications to atoms and molecules. P/NP or letter grading.

116. Elementary Particle Physics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Mathematics 32B, 33A, 33B: Corequisite: course 115C. Introduction to physics ofelementary particles. The four basic interactions: strong, electromagnetic, weak, and gravitational. Properties of baryons, mesons, quarks, and leptons; conservation laws, symmetries and broken symmetries; the Standard Model. Experimental techniques; new physics at the new accelerators. P/NP or letter grading.


126. Introduction to Plasma Electronics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, 110B, 115A, 115B. Physics of charged-particle and laser beams presented as a unified subject. Basic physics of charged-particle beams, covering relativistic particle optics, magnetic fields, transverse focusing, acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including gain and amplification, generation of light pulses, resonators, and advanced topics and applications. P/NP or letter grading.


128. Cosmology and Particle Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 115A, 115B, 115C, 115D. Introduction to cosmology and high-energy particle astrophysics, based on latest developments of both experiment and theory. Special emphasis on unified models that emerge from particle physics, astronomy, and cosmology. Ex- tensive discussion of unsolved problems and future prospects to help students determine their opportunities in future. P/NP or letter grading.

131. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Vectors and fields in space, linear transformations, matrices, and operators; Fourier series and integrals. P/NP or letter grading.

132. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131, Mathematics 32B, 33A, 33B. Functions of a complex variable, including Riemann surfaces, analytic functions. Cauchy theorem and formula, Taylor and Laurent series, calculus of residues, and Laplace transforms. P/NP or letter grading.

140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A, 115B, 115C. Introduction to solid-state physics, including elements of hydrometals and elastodynamics. P/NP or letter grading.


144. Polymer Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 105A, 110A, and 112 or Chemistry 110A. How physical properties of polymers can be derived from mathematical models of chains and coils. Comparison of these models to experiments, showing how to design experiments to examine the polymer problem and used to predict mechanical characteristics of large molecules. Study of networks of polymers and polymer fluids, with an emphasis on concentration and time-dependent responses. Discussion of rearrangement of individual polymer chains in melts. Study of examples of more complex structures, such as polymer fractals. Consideration of applications of this work to biology, with focus on their potential role in evolution and current hypotheses on origins of life. P/NP or letter grading.

150. Physics of Charged-Particle and Laser Beams. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH); 110A, 110B, 115A, 115B. Physics of charged-particle and laser beams presented as a unified subject. Basic physics of charged-particle beams, covering relativistic particle optics, magnetic fields, transverse focusing, acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including gain and amplification, generation of light pulses, resonators, and advanced topics and applications. P/NP or letter grading.

170A. Electronics for Physics Measurement. (4) Formerly numbered 117.) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Hands-on experimental course to develop understanding of design principles in modern electronics for measurements. Basics of analog and digital electronics from practical viewpoint, followed by examination of typical circuits for scientific instrumentation and study of methods of computer data acquisition and signal processing. Letter grading.

170M. Machine Learning for Physical Sciences Laboratory. (4) Formerly numbered 180M.) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32A, 33A, 33B. Preparation: familiarization using Python. Project-based course designed for students with no previous experience in machine learning to learn the basics of machine learning and their application to scientific problems in physical sciences. Students develop experience in compilation, analysis, and cleaning of data. Machine learning topics include classification, regression, dimensionality reduction, clustering, and kernel methods. P/NP or letter grading.

170N. Computational Physics and Astronomy Laboratory. (4) (Formerly numbered 180N.) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32A, 33A, 33B. Preparation: familiarization using Python. Project-based course designed for students with no previous experience in machine learning to learn the basics of machine learning and their application to scientific problems in physical sciences. Students develop experience in compilation, analysis, and cleaning of data. Machine learning topics include classification, regression, dimensionality reduction, clustering, and kernel methods. P/NP or letter grading.
tive phenomena in solids, such as quantum oscillations, superconductivity, and ferroelectricity. Use of introduced methods to investigate bulk properties, such as magneto-transport, dielectric, and magnetic responses. P/NP or letter grading.

180D. Acoustics Laboratory. (4) Lecture, two hours; laboratory, for seniors. Recommended: courses 112, 114. Study of waves and sound propagation in different media. Students uncover various waves in different phases of matter, including gases, liquids, and superfluids. Experience in terms of wave mechanics and dynamics. Students gain experience in basic electronics, amplifiers, speakers, microphones, cyrogens, and fast Fourier transforms. P/NP or letter grading.

180E. Plasma Physics Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisite: course 110B. Recommended: course M122. Investigation of plasma physics concepts through experiments using laboratory plasmas. Topics explored may include plasma breakdown and formation by cathode discharge and inductively-coupled electric fields, measurement of plasma properties using Langmuir probes, and excitation and measurement of plasma waves. Theory of operation and use of vacuum systems, electronics, pulsed high power sources, variety of measurement techniques, and data acquisition systems. P/NP or letter grading.

180F. Elementary Particle Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisites: courses 110A, 115B. Recommended: courses 18L, 126. Experience of conducting independent research in experimental high-energy physics. Overview of standard model, interaction of particles with matter, basic particle detection techniques, introductory probability and statistics, and analysis with Python and ROOT. P/NP or letter grading.

M180G. Soft Matter Laboratory. (Same as Chemistry M120G.) Lecture, 90 minutes; laboratory, four hours. Requisites: courses 110A, 110B, 115A. Students gain experience of conducting independent research in experimental biological physics. Construction of modern microscope. Use of microscope to image biological specimens. Students learn optics, diffraction, imaging, microscopy, and basic physics, and/or fluorescent labeling. P/NP or letter grading.

180Q. Quantum Optics Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisite or corequisite: course 115B. Recommended: courses 110A, 115B. Students gain experience of conducting independent research in experimental quantum optics. Demonstrate concepts of quantum mechanics, superposition, photon counting. P/NP or letter grading.

C186. Neurophysiology: Brain-Mind Problems. (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 summaries of biological theories 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 and use of them to understand link between neural circuits, their emergent neural dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between circuits and their role in cognition, learning, and sleep. Computer laboratory component where students learn to write simple codes to quantify neural activity patterns. Concurrently scheduled with course C186. P/NP or letter grading.

C187A. Biological Physics I: Life at Rest. (4) Lecture, three hours. Enforced requisites: courses 105A, 110A, 110C, Chemistry 110A, Molecular, Cell, and Developmental Biology 140 or 165A). Equilibrium phenomena. Application of basic mechanics, optics, and thermodynamics to biological design; structure of skeleton, scaling of bone and muscle mass, swim

bladders, and animal vision. Application of elementary statistical physics, environment, and elasticity to structure of proteins, DNA, and biomembranes. Concurrently scheduled with course C287A. 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; limited to undergraduate 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. P/NP or letter grading. 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.

189C. 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 supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. 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 Physics. (2) Seminar, two hours. Designed to bring together students under supervising tutorial research in seminar setting with other 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. (To be arranged) Tutorial, to be arranged. May be repeated for credit. P/NP grading.

192. Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students. Focus on topic in preparation of materials and development of innovative programs with guidance of faculty members in small course sections. May be repeated for credit. P/NP or letter grading.

192M. Methods and Application of Collaborative Learning Theory in Physical Sciences. (2 to 4) Seminar, two hours; laboratory, six hours. Requisites: one course from 110A, 115B, 126, 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 refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with the development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated four times for credit. Letter grading.

M192S. Introduction to Collaborative Learning Theory and Practice. (1) Formerly numbered 192S.) (Same as Chemistry M192E, Computer Science M192A, Life Sciences M192A, and Mathematics M192A.) 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 frequent assessment of and feedback on progress. Letter grading.

193. Journal Club Seminars: Physics. (2) Seminar, one hour. Limited to undergraduate students. Seminars are linked to speaker-series seminars offered by discipline. Masked reading of weekly journal reading and discussion of literature 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. Designated for students who are members of research group. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Physics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/senior students with currently scheduled with course C287A. P/NP or letter grading.

197. Individual Studies in Physics. (2 to 4) Tutorial, to be arranged. Limited to juniors/senior. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Directed reading and tangible evidence of mastery of subject matter required. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Physics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with overall 3.0 grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Physics and Astronomy. (1 to 4) Tutorial, two hours. Limited to juniors/senior students. Supervised individual research or investigation under guidance of faculty mentor. Cummulating paper required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201Q. Modern Physics Research Areas. (1) Seminar, reading and discussion, one hour. May be repeated for credit. P/NP grading.

210A. Electromagnetic Theory. (4) Lecture, three hours; discussion, one hour. Boundary value problems in elasticity and dielectrics; Maxwell equations and conservation laws. Waves guides and resonators; simple radiating systems. Letter grading.

213A. Advanced Atomic, Molecular, and Optical Physics. (4) Lecture; three hours. Requisite: course 221A (may be taken concurrently). Quantum optics, quantum entanglement, quantum information processing, quantum sensing, quantum communication. S/U or letter grading.

213B. Advanced Atomic, Molecular, and Optical Physics. (4) Lecture; three hours. Requisite: course 221A (may be taken concurrently). Quantum optics, quantum entanglement, quantum information processing, quantum sensing, quantum communication. S/U or letter grading.

221C. Atomic and molecular structure, light-matter interactions, density matrix representation, Jayne-Cumming's Hamiltonian, and sample of current techniques. S/U or letter grading.


229E. Particle Astrophysics: Exploring Earliest and Extreme Universe. (4) Lecture; three and one half hours. Requisites: courses 210A, 210B, 221A, 221B. Recommended: course 226A. Introduction to high-energy astrophysics and discussion of latest developments in both experimentation and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. S/U or letter grading.

230A. Quantum Field Theory. (6) Lecture; four hours. Requisite: course 221C or equivalent and knowledge of basic special relativity. Introduction to relativistic quantum field theory starting from first principles. Topics: quantum fields on curved space-time, Lagrangian formulation, action, path integral. Letter grading.


230D. Quantum Field Theory. (6) Lecture; four hours. Requisites: courses 221A, 221B, 221C. Topics in modern quantum field theory, including solitons, instantons, and other topological defects, large N methods, finite temperature field theory, lattice field theory, effective field theory methods and chiral Langrangians, confinement, chaotic behavior of dynamical systems, and the Higgs mechanism. S/U or letter grading.

231A. Methods of Mathematical Physics. (4) Lecture; four hours. Requisites: courses 221A, 221B, 221C. Methods of mathematical physics and their application to physics including basic topology, complex analysis, Fourier analysis, elliptic functions, linear differential operators, Green functions, and special functions associated with eigenvalue problems of ordinary and partial differential operators on flat and curved spaces. Letter grading.

231B. Methods of Mathematical Physics. (4) Lecture; four hours. Requisites: courses 221A, 231A, or equivalent. Widespread methods of modern group theory with applications to problems of fundamental importance to modern physics. Applications to group theory, Lie algebras, crystallographic groups, representations of groups and Lie algebras, tensors, spinors, roots, weights, structure of simple Lie algebras, and homogeneous spaces. S/U or letter grading.


232A. 232B. Relativity. (4–4) Special and general theories, with applications to elementary particles and astrophysics.

233C. Special Topics in General Relativity. (4) Lecture; four hours. S/U or letter grading.

M236. Geometry and Physics. (4) Same as Mathematics 217. Lecture; three hours. Interdisciplinary course on topics at interface between physics quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supergravity, Seiberg/Witten theory, conformal field theory, Calabi/Yau manifolds, mirror symmetry and duality, integrable systems. S/U grading.

237A. String Theory. (4) Lecture; four hours. Requisites: courses 221A, 221B, 221C, 230A. Historical introduction to string theory, including classical bosonic string and its symmetries, light cone quantization, covariant quantization, conformal field theory, Polyakov path integral, tree level amplitudes, and loop amplitudes. S/U or letter grading.

237B. String Theory. (4) Lecture; four hours. Requisite: course 237A. Current topics in string theory, which may include anti-de Sitter/conformal field theory (AdS/CFT) correspondence, string dualities, compactification, and connections to quantum information. S/U or letter grading.


243M. Statistical Mechanics of Living Systems from Active Matter to Immune System. (2 to 4) Seminar, four hours. Exploration of how concepts and models from statistical physics can be used to gain quantitative and intuitive understanding of biological phenomena. Analysis of analytical and computational methods for describing stochastic complex systems, with application to problems in mechanics and dynamics of active matter and evolutionary dynamics of immune systems. S/U or letter grading.

250. Introduction to Acceleration of Charged Particles. (4) Lecture, three hours. Requisites: courses 210A, 210B, 215A. Principles of charged-particle acceleration, including principles of synchrotrons and storage rings, and techniques in order to determine, statistically, the behavior of beams and beam cooling techniques, synchrotron light sources, colliding beam storage rings, and free electron lasers.


266. Seminar: Propagation of Waves in Fluids. (2 to 4) Seminar, three hours. S/U or letter grading.

268. Seminar: Spectroscopy. (2 to 4) Seminar, three hours. S/U or letter grading.

269A. Seminar: Elementary Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269B. Seminar: Elementary Particle Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269C. Seminar: Accelerator Physics. (2 to 4) Seminar, three hours. Physics principles governing design and performance of particle accelerators, using existing accelerators as examples and emphasizing interplay among design goals, component performance, and operational experience. S/U grading.

290. Research Tutorial: Plasma Physics. (2 or 4) Requisites: courses 226A, 230A, 230B. Required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students directed toward problems of current research interest in plasma physics group, both experimental and theoretical. May be repeated for credit. S/U grading.

291. Research Tutorial: Elementary Particle Theory. (2 or 4) Requisites: courses 226A, 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.

293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour. Seminar and discussion by staff and students on current topics in physics, both experimental and theoretical (topics not limited to one field of physics). Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.

294. Research Tutorial: Accelerator Physics. (2 or 4) Lecture, one hour; discussion, two hours. Requisites: courses 226A, 230A, 230B. Seminar and discussion by staff and students on problems of current interest in accelerator physics. May be repeated for credit. S/U grading.


C209. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U grading.

C208. Master’s Thesis Research and Writing. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U or letter grading.

C209. PhD Research and Writing. (4 to 12) Tutorial, to be arranged. May be repeated for maximum of 18 units. S/U grading.

Quantum Science and Technology
Graduate Courses

M205. Quantum Programming. (4) (Same as Computer Science M238) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mathematics 115A, History of quantum computing; notion of qubit; four postulates that provide interface to quantum mechanics; concepts of quantum circuit and universal gate set; quantum teleportation; superdense coding; no-cloning theorem; suite of fundamental quantum algorithms including Shor’s algorithm, Grover’s algorithm, and quantum approximate optimization algorithm; several quantum programming languages and how they compare; quantum simulators; quantum compilers; quantum error correction; quantum advantage. Students implement several quantum algorithms in multiple languages and run them on both simulators and quantum computer. Letter grading.

410. Quantum Optics Laboratory. (4) Laboratory, eight hours. Limited to Master of Quantum Science and Technology students. Examination and use of modern optics, including lasers, optics, fibers, polarization manipulation, and photon counting. Use of techniques of quantum optics to demonstrate conceptions of quantum mechanics, including superposition, quantum measurement, hidden variable theories, and Bell’s inequality. Application of quantum optics to quantum information science. Letter grading.

PHYSICS AND BIOLOGY IN MEDICINE
Interdepartmental Program
David Geffen School of Medicine
B2-115 Center for Health Sciences
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Physics and Biology in Medicine 310-825-7811 Program e-mail
Michael McNitt-Gray, PhD, Chair
Magnus Dahlbom, PhD, Graduate Adviser

Faculty Committee
Stephen C. Cannon, MD, PhD (Molecular and Medical Pharmacology, Physiology)
Magnus Dahlbom, PhD (Molecular and Medical Pharmacology)
Dana R. Enzmann, MD (Radiological Sciences)
Michael McNitt-Gray, PhD (Radiological Sciences)
Overview

The Physics and Biology in Medicine Master of Science (MS) and Doctor of Philosophy (PhD) Program is a CAMPEP-accredited interdepartmental graduate program supported by the departments of Molecular and Medical Pharmacology, Radiation Oncology, and Radiological Sciences. It offers training in four specialties: medical imaging, molecular and cellular oncology, molecular imaging, and therapeutic medical physics.

Facilities

Specialized facilities for training and research are available in the departmental laboratories, as well as in the Crump Institute for Molecular Imaging, Center for Medical Countermeasures against Radiation, and Center for Computer Vision and Imaging Biomarkers, among others. Highly specialized equipment includes state-of-the-art medical imaging modalities such as MRI, CT angiography, and PET/CT in both clinical and preclinical settings, as well as advanced radiotherapy treatment and planning facilities. The program prepares students for careers as independent researchers or professional medical physicists, and graduates pursue academic, industrial, 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.

Graduate Major

Physics and Biology in Medicine MS, PhD

Requirements

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

Physics and Biology in Medicine

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their area 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 mentorship. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Biomedical Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Physics and Chemistry of Nuclear Medicine. (4) Lecture, three hours; discussion, one hour. Nuclear structure, statistics of radioactive decay, nuclear reactions, and compartment models. Physical and chemical properties of radioactive preparations used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET. S/U or letter grading.

200B. Nuclear Medicine Instrumentation. (4) Lecture, one hour; laboratory, three hours. Requisite: course 200A. Introduction to nuclear medicine instrumentation, including well-irradiation chambers, probe and well scintillation detectors, scintillation cameras, and single photon and positron emission computed tomography. S/U or letter grading.

201. Medical Radiation Accelerator Design. (4) Lecture, three hours. Requisite: course 216. Overview of physical principles involved in design of current particle accelerators (electron, proton, heavy particle) and analysis of characteristics of current accelerators and facility design. S/U or letter grading.


204. Introductory Radiation Biology. (4) Lecture, 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. Introduction to areas of expertise in diagnostic radiology, including X-ray system components, physics principles of medical radiography, radiographic image quality, fluoroscopy, image intensifiers, and advanced digital imaging techniques. 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 205. 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, object recognition, classification, and visualization with biomedical applications. Topics include region-growing, edge detection, mathematical morphology, clustering, neural networks, and volume rendering in lectures, case studies, and programming projects. S/U or letter grading.

211. Medical Ultrasound. (4) Lecture, 90 minutes; laboratory, two hours. Preparation: one calculus course. Production of real-time ultrasound images, transducer modeling and design, Doppler and color flow instrumentation, biohazards of ultrasound, ultrasound phantom design, and ultrasound tissue characterization techniques. Laboratory included. S/U or letter grading.

212. Biochemical Basis of Positron-Emission Tomography (PET). (4) Lecture, three hours; discussion, one hour. Introduction to biochemical processes and application of radioisotopes to study metabolism non-invasively by positron-emission tomography (PET). Validation of kinetic models to derive quantitative information from PET. Introduction to clinical and experimental application of PET. S/U or letter grading.

213. Quantitative Autoradiography. (4) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimation of brain and heart functions. Topics include 2-deoxyglucose method for metabolic rate; iodantipyrine method for blood flow; amino acid method for protein synthesis; quantitative autoradiography; neuropeptide and neuro-physiology of autoradiogram and PET scan interpretation. S/U or letter grading.

214. Medical Image Processing Systems. (4) Lecture, three hours; discussion, one hour. Requisites: courses 209, 210. Advanced image processing and
image analysis techniques applied to medical images. Discussion of approaches to computer-aided diagnosis and image quantitation, as well as application of pattern classification techniques (neural networks and discriminant analysis). Examination of problems from several imaging modalities (CT, MR, CR, and mammography). S/U or letter grading.

215. Breast Imaging Physics and Instrumentation. (4) Lecture, three hours; laboratory, two hours. Requisites: course 205. Special requirements of mammography, including x-ray systems; mammography X-ray units from generators and tubes through screen/film cassettes. Stereotactic biopsy units, cost/benefit controversy of screening mammography, digital mammography, computer-aided diagnosis, telemedicine, mammography outreach, breast MRI, and breast ultrasound. 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, experimental design, and data analysis for 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 microscopy, molecular imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Same as Bioengineering M219.) Lecture, three hours; discussion, one hour. Basic principles of magnetic resonance (MR), physics, and image formation. Emphasis on hardware, Bloch equations, analytic expressions, image contrast mechanisms, spin and gradient echoes, Fourier transform imaging methods, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quantitative imaging, and functional imaging. S/U or letter grading.

220A-220D. Laboratory Rotations in Biomedical Physics. (2-2) Laboratory, two hours. Laboratory projects to provide students with introduction to field. One oral and one written presentation required. S/U grading.

M220A. Medical Imaging. (4) (Same as Bioengineering M220A.) Lecture, four hours. Preparation: strong mathematical background. Introduces medical imaging, a parallel to the physical principles and engineering techniques used in radiotherapy and nuclear medicine. Prerequisites: Mathematics 22B. Designed for students interested in pursuing research related to development or translation of new magnetic resonance imaging (MRI) techniques. Introduction to all regulatory issues pertaining to medical imaging. S/U or letter grading.

M220B. Advances in Medical Magnetic Resonance Imaging (MRI). (4) (Same as Bioengineering M220B.) Lecture, three hours; discussion, one hour. Introduction to all regulatory issues pertaining to medical imaging. S/U or letter grading.

M220C. Therapeutic Medical Physics. (4) Lecture, four hours. Preparation: strong mathematical background. Introduces medical imaging, a parallel to the physical principles and engineering techniques used in radiotherapy and nuclear medicine. Prerequisites: Mathematics 22B. Designed for students interested in pursuing research related to development or translation of new magnetic resonance imaging (MRI) techniques. Introduction to all regulatory issues pertaining to medical imaging. S/U or letter grading.

M225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) Lecture, four hours. Requisite: course M219. Introduction to magnetic resonance contrast mechanisms and quantification techniques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, measuring tissue perfusion and permeability, advanced diffusion and q-space analysis, chemical exchange and magnetization transfer imaging, and relaxation. Letter grading.

227. Human Disease: Current and Future Role of Biomedical Physics. (4) Lecture, three hours; discussion, one hour. Present and future roles of biomedical physics in diagnosis and treatment of human disease, with references to specific tissues or organ system. Exploration of two diseases in depth with detailed description 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 intersection between diagnosis and therapy. Letter grading.

M229. Advanced Topics in Magnetic Resonance Imaging (MRI). (4) Lecture, four hours. Requisite: course M220A. Designed for students interested in pursuing research related to development or translation of new magnetic resonance imaging (MRI) techniques. Introduction to all regulatory issues pertaining to medical imaging. 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 techniques utilized in radiation therapy. Topics include clinical treatment planning work flow, general planning principles and strategies, and specific considerations for various treatment delivery modalities and advanced treatment techniques. Detailed discussion on dose calculation algorithms and inverses planning and optimization. Clinical treatment planning demonstration, and computer-aided 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.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including imaging of living cells, in vitro and in vivo imaging, and applications of imaging for range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.

260A-260B-260C. Seminars: Biomedical Physics. (1-1-0) Seminar, two hours; laboratory, two hours; discussion, two hours. Enrollment limited to students and instructors in fields of knowledge pertaining to biophysical medicine. Periodic contributions by visiting scientists. Discussion of research in progress. Participation in seminars required for spring term. May be repeated. S/U (260A, 260B) and letter (260C) grading.

268. Radiopharmaceutical Chemistry. (4) Lecture, two hours; discussion, two hours. Introduction to advanced concepts in chemistry of radiopharmaceuticals and radiopharmaceutical production and analysis. Areas of focus are (1) radiochemistry with fluorine-18 and other isotopes, (2) technologies for synthesis automation and optimization, (3) analytical methods 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 evaluation, radiopharmaceutical production 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 lectures from department, other universities, and private industry. S/U or letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M285, Neuroscience M285, Psychiatry 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.

266. Image Registration Techniques. (4) Lecture, four hours. Preparation: strong mathematical background. Examination of state-of-the-art image registration methods that exist today. Mathematical descriptions of each different class of registration methods and two-dimensional/three-dimensional/four-dimensional implementation details. Programming of registration methods in MATLAB/C++ or C/IDL/AVIA interfaces so students learn all registration methods currently investigated. Letter grading.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) (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. Preparation and critique of student papers. Overall emphasis on magnetic resonance imaging. Example areas include tractography through diffusion tensor imaging, jittered event-related experimental designs, parallel receive MRI imaging, integrated electrophysiological and image acquisition. S/U grading.

495. Special Studies in Biomedical Physics. (4) Seminar, two hours; laboratory, four hours. Teaching assistant in graduate laboratory courses under supervision of faculty member. S/U grading.

598. Research for and Preparation of MS Thesis. (4 to 12) Tutoring, to be arranged. Directed individual study or research. Only one 598 course may be applied toward MS degree requirements. May be repeated for credit. S/U or letter grading.

599. Research for and Preparation of PhD Qualifying Examinations. (4) Tutorial, to be arranged. May not be applied toward MS degree requirements. May not be repeated. S/U grading.

598. Research for and Preparation of MS Thesis. (4 to 12) Tutoring, to be arranged. Two 598 courses (or 598 and 596 combined) may be applied toward MS degree requirements. May be repeated. S/U grading.

599. Research for and Preparation of PhD Qualifying Examinations. (4) Tutorial, to be arranged. May not be applied toward MS degree requirements. May not be repeated. S/U grading.

PHYSIOLOGY

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Physiology

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Physiology / 735
Thomas J. O’Dell, PhD, Executive Vice Chair

Overview

Physiology is the science of the functional activities of living systems. This covers a wide range, including observations on humans and experiments on animals and model systems in order to understand principles. Physiology is the science most directly relevant to human medicine in all its specialties and to understanding all environmental factors affecting human life. It is also a pure science of great challenge because of the complexity of its problems and its extensive interaction with mathematical, physical, biochemical, and engineering sciences, as well as with other branches of biology.

Within the prescribed curriculum, students may specialize in cellular and molecular physiology, theoretical and mathematical physiology, and organ systems and integrative phenomena, including neuroscience and behavioral physiology.

The Department of Physiology offers post-doctoral training in research and welcomes students interested in articulated MD/PhD programs.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology Doctor of Philosophy (PhD) program. Physiology faculty information is available from the department.

Physiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Physiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


220. Methods in Cell Physiology. (6) Linear circuit analysis, including admittance, transfer admittance, transfer function, and filters using transform methods. Application of these concepts to electronic analog circuits in lectures and laboratory, with emphasis on operational amplifiers. Applications to electrophysiology include microelectrode amplifiers, voltage clamp and patch clamp techniques, with circuit analysis and noise considerations. Digital electronics cover logic gates, sequential circuits, and A/D and D/A conversion, with introduction to sampling theory.

221. Cell Physiology: Excitability. (6) Requisite: course 220. In-depth coverage of general properties of excitable cells, linear circuit properties, nonlinear conductance changes, and generation and propagation of the nerve impulse. Voltage gating and gating currents, as well as relationships between macroscopic conductance and single channel properties discussed in analytical detail using original publications.

298. Current Topics in Physiology. (2 to 4) Lecture, one hour; discussion, one hour. Designed for graduate students. Students read primary literature in a specified area and conduct or participate in discussions on these papers. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

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


POLITICAL SCIENCE

College of Letters and Science

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Political Science

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Lorrre A. Frasure-Yokley, PhD, Vice Chair, Graduate Studies
Christopher N. Tausanovitch, PhD, Vice Chair, Undergraduate Studies

Faculty Roster

Professors

Matthew A. Barreto, PhD
Kathleen Bawn, PhD
Michael S.Y. Chwe, PhD
Joshua F. Dienstag, PhD (Shapiro Family Endowed Professor of Modern Political Theory)
Leslie N. Johns, PhD
Deborah W. Larson, PhD
Jeffrey B. Lewis, PhD
Michael F. Lofchie, PhD
Susanne Lohmann, PhD
Kirstie M. McClure, PhD
Barry O’Neill, PhD
Karen J. Orren, PhD
Anthony R. Pagden, PhD
Davide Panagia, PhD
Efren O. Perez, PhD
Mark A. Peterson, PhD
Daniel N. Posner, PhD (James S. Coleman Professor of International Development Studies)
Ronald L. Rogowski, PhD
Michael L. Ross, PhD
Thomas Schwartz, PhD
Gary M. Segura, PhD
Giulia Sissa, PhD
Arthur A. Stein, PhD
Richard H. Steinberg, JD, PhD (Jonathan D. Varat Endowed Professor of Law)
James W. Tong, PhD
Daniel S. Treisman, PhD
Lynn Vavreck, PhD (Marvin Hoffenberg Professor of American Politics and Public Policy)
David O. Wilkinson, PhD

Professors Emeriti

Joel D. Aberbach, PhD
Richard D. Anderson, Jr., PhD
James D. DeNardo, PhD
Leonard Freedman, PhD
Barbara Geddes, PhD
Robert S. Gerstein, PhD
Edward Gonzalez, PhD
Miriama A. Golden, PhD
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Associate Professors

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Scott C. James, PhD
Natalie R. Matsuoka, PhD
Margaret E. Peters, PhD
Christopher N. Tausanovitch, PhD
Michael F. Thies, PhD
Robert F. Trager, PhD
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 qualitative and non-quantitative analysis
- Knowledge of diverse theories of politics by engaging critically with texts, media, and contexts
- Employment of cultural, hermeneutical, normative, and historical approaches
- Location, evaluation, and use of information and scholarship needed to place particular political events in broader historical, cross-national, and theoretical contexts
- Demonstrated familiarity with various approaches to the study of politics, and their application to specific questions, puzzles, and debates
- Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

Entry to the Major

Pre-major
All students intending to major in Political Science must enroll as Political Science pre-majors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

Transfer Students
Transfer applicants to the Political Science major must work with 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.

Requirements

Preparation for the Major

Required: Four lower-division courses from Political Science 10, 20, 30, 40, 50. Students must also take Political Science 6 or 6R. Students must complete all pre-major courses with a 2.0 grade point average by the time they attain 135 units. Admission to the major is granted only after successful completion of all lower-division requirements.

Undergraduate Major

Political Science BA

The undergraduate major in the Department of Political Science aims to provide students with understanding of basic political processes and institutions as these operate in different national and cultural contexts. It also covers the interaction of relations between citizens and governments, and the values and criteria by which the quality of political life is judged. The program may be individually focused to serve the needs of the liberal arts major, the student seeking preparation for graduate work in political science, public administration, law, and other professional fields, and the student preparing for specialized roles in political and public organizations.

Learning Outcomes

The Political Science major has the following learning outcomes:

- Demonstrated familiarity with various approaches to the study of politics, and their application to specific questions, puzzles, and debates
- Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

Entry to the Major

Pre-major
All students intending to major in Political Science must enroll as Political Science pre-majors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

Transfer Students
Transfer applicants to the Political Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one statistics course and four courses from political theory, world politics, game theory, American politics, or comparative politics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Four lower-division courses from Political Science 10, 20, 30, 40, 50. Students must also take Political Science 6 or 6R. Students must complete all pre-major courses with a 2.0 grade point average by the time they attain 135 units. Admission to the major is granted only after successful completion of all lower-division requirements.

Honors Program

Students wishing to qualify for graduation with departmental honors must complete courses 191H and 198, in which a senior thesis is written.

Policies

The Major
Each course must be taken for a letter grade. Students are required to maintain a 2.0 overall grade-point average in all upper-division political science courses.

Courses 191H, 195CE, 198, and 199 may not be applied toward either the concentration or distribution requirement.

Honors Program

The department honors program is open to seniors and to students who (1) have completed five upper-division political science courses (two of which are in one field), (2) have a 3.5 grade-point average in upper-division political science courses, and (3) are eligible for College of Letters and Science honors. Students should have substantial experience in writing research papers before they enter the honors program or course 191H.

Successful completion of the honors program is indicated on the transcript and diploma.

Graduate Major

Political Science MA, CPhil, PhD

The graduate program leads to the PhD degree in Political Science (a master’s degree may be earned in the process of completing PhD requirements). It is designed to give students a strong foundation in the discipline while enabling them to acquire additional skills for advancing their professional careers.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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. (S) 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. (S) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 50R. Not open for credit to students with credit for course 6. Introduction to collection and analysis of po-
political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics. P/NP or letter grading.

10. Introduction to Political Theory. (5) Lecture, three hours; discussion, one hour. Exposition and analysis of selected political theories and concepts from Plato to the present. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP 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.

30. Politics and Strategy. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Introduction to strategic interaction in political applications. Use of game theory and other formal modeling strategies to understand politics. P/NP or letter grading.

40. Introduction to American Politics. (5) Lecture, three hours; discussion, one hour. Basic institutional processes 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 Political Philosophy. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50R. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries, with emphasis on presentation and evaluation of quantitative evidence. 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 6R. Not open for credit to students with credit for course 50. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries, with emphasis on presentation and evaluation of quantitative evidence. P/NP or letter grading.

59. 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. Under what condition do political parties feed productively or counterproductively into group effort. Development of self- and other-awareness of emergent properties of disagreement to appreciate how difference social organization promotes different social organization and how the social organization of its power, participation, and difference. P/NP or letter grading.

59A. Democratic Theory. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Critical analysis of selected major authors, issues, and arguments in contemporary democratic theory.

511B2. Invention of Democracy. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Discussion of major authors, issues, and arguments in contemporary democratic theory. P/NP or letter grading.

60. Rights 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. Under what condition do political parties feed productively or counterproductively into group effort. Development of self- and other-awareness of emergent properties of disagreement to appreciate how difference social organization promotes different social organization and how the social organization of its power, participation, and difference. P/NP or letter grading.

60A. Democratic Theory. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Critical analysis of selected major authors, issues, and arguments in contemporary democratic theory.

61. Problems in 20th-Century and Contemporary Political Theory. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study and interpretation of theorists who have focused their analyses on social and political problems of 20th century. P/NP or letter grading.

61B. Political Theory, and Film. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Intense and individualized examination of politically significant films with respect to central issues in political theory such as power and truth in light of relevant political theorists. P/NP or letter grading.

61A. American Political Thought II, 1865 to Present. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Course 11A is not required to 114B. Designed for juniors/seniors. Examination and critical analysis of American political thinkers from Reconstruction to present. P/NP or letter grading.

616C. Citizenship and Public Service. (4) Seminar, three hours. Designed for juniors/seniors. Exploration of connection between humanist practices (philosophy, sociology, science, republican self-fashioning) and promotion of civic ethos—culture that would promote a participatory and engaged society. How has humanist informed our Western understanding of republicanism and civic responsibility? What aspects of our humanist heritage maintain relevance for world that many describe as posthumanist? What form of civic culture is most appropriate for North American citizens in 21st century? P/NP or letter grading.

616A. Marxism. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of important texts in contemporary Marxist political theory. P/NP or letter grading.

616B. Continental Political Thought. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Study of important texts in continental political theory, including relationship between politics and reason, skepticism, and political freedom. P/NP or letter grading.

617. Jurisprudence. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of law and legal systems; consideration of fundamental legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government. Letter grading.

618. Laws of War and Peace from Conquest of America to Declaration of Human Rights (1948). (4) Lecture, three hours; discussion, one hour (when scheduled). Proposed: one course in Field I. Recommended requisite: course 10. Designed for juniors/seniors. Examination of theories of international relations and international law, with special emphasis on warfare, from conquest of America to end of World War II. P/NP or letter grading.

619. Special Studies in Political Theory. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course in Field I. Recommended requisite: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to political theory. Sections offered on regular basis on topics announced in advance. May be repeated for credit with topic change. P/NP or letter grading.

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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. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include evolution of influential case(s) of modernization of classical antiquity. P/N or letter grading.

120B. World Politics and U.S. Foreign Policy after September 11. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Video lectures by leading scholars as well as live lectures and discussion on complex problems 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/seniors. Study of American foreign policy with respect to individual cases. Consult Schedule of Classes to determine whether offered in specific term. P/N or letter grading.

122A. World Order. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: 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.

122B. Global Environment and World Politics. (4) (Same as Environment M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/N or letter grading.

122C. Global Catastrophic Risk: Clash of Science, Politics, and Ethics (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Global catastrophic risks pose challenge to modern civilization because of their superhuman extension in space, time, and knowledge realm. Their reach is global; their impact is long-term; and their comprehension is complex. How do we as a society allocate limited resources available to us and national and as well as egotistical, particularistic, and tribal. Overlapping generations spell intergenerational conflicts among living—young, middle-aged, and old—and dead—those who benefit and those who bear the burden. Deeply and variably specialized experts struggle to communicate across scientific disciplines, across natural and human sciences, and across pure and applied sciences—only to hit brick wall in their communications with lay public, which is variously represented by elected politicians, appointed bureaucrats, organized interest groups, and fluid social movements. Study of media's role. P/N or letter grading.

123A. International Law. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of nature and place of international law in conduct of international relations. P/N or letter grading.

123B. International Organizations. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of both theory and functioning of international organizations in promoting international cooperation. Required readings include both statistical and formal models. P/N or letter grading.

124A. International Political Economy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of political aspects of international economic issues. P/N or letter grading.

124C. Politics of Latin American Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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 deterrence doctrines 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). Requisite: course 20. Designed for juniors/seniors. Theory and research on causes of war and conditions of peace.

127A. Atlantic Area in World Politics: Western Europe. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. External relations of United Kingdom, West Germany, France, Italy, and other European members of NATO, in relation to regional and global developments. P/N or letter grading.


128B. International Relations of Post-Communist Europe. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: courses 20, 127A. Designed for juniors/seniors. Analysis of role of diplomacy in great power politics, history of diplomatic institutions, advantages of public and private diplomacy, bilateral and multilateral settings, and theory and practice of deterrence and coercion. Use of game theoretic reasoning and historical analysis. Prior exposure to both useful but not required. P/N or letter grading.

128C. International Relations of Middle East. (4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading.

132A. Electoral Politics: Political Psychology. (4) (Same as Psychology M138.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of political psychological variables such as personality and politics, racial conflict, and psychological analysis of public opinion on these issues. P/N or letter grading.

140A-140B-140C. National Institutions. (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 140A. Congress. Study of those factors which affect character of the legislative process and capacity of representative institutions to govern in contemporary society. 140B. The Presidency. Study of nature and problems of presidential leadership, emphasizing impact of the bureaucracy, congress, public opinion, interest groups, and party system on the presidency and national government. 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.

141A. Electoral Politics: Political Psychology. (4) (Same as Psychology M138) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of public opinion and voting behavior. P/N or letter grading.

141B. Electoral Politics: Public Opinion and Voting Behavior. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Study of character and formation of public opinion, role of public opinion in elections, relationship of political attitudes to vote decision, and influence of public opinion on public policy formulation. P/N or letter grading.

141C. Electoral Politics: Political Behavior Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 6, 40, 141B. Designed for juniors/seniors. Advanced course in use of quantitative methods in study of political behavior, especially in relation to voting patterns, political participation, and techniques of political action. Students conduct computer-aided analyses of issues and problems treated in course 141B and similar courses. P/N or letter grading.

141E. Electoral Politics: Elections, Media, and Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Analysis of elections and media, including game-theoretic analysis, Downs spatial model of elections, Valence characteristics in elections, campaign finance, endogeneity problems in social sciences, liberal bias in media, industrial organization of news industry, and effects of media on voter decisions. May be applied toward Field III or V. P/N or letter grading.

142A. Political Parties and Interest Groups. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Organization and activities of political parties in the U.S. Attention to historical development of the parties, nature of party change, campaign functions and electoral role of the parties, membership problems and party activists, political finance, and policy formulation practices. P/N or letter grading.
143A. Subnational Government: American State Government. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. 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.

143B. Metropolitan Governance. (4) Lecture, three or four hours; discussion, one hour (when scheduled). 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 major issues in metropolitan governance through classic and contemporary readings on political power, political economy of cities, and racial/ethnic segregation, as well as political incorporation and racial/ethnic coalitions. P/NP or letter grading.

145A. Public Law and Judicial Process: Anglo-American Legal System. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Evolution of English common law and theory of judicial decision making, with emphasis on development of basic concepts of law which were received from that system in U.S. and remain relevant to modern legal theories. P/NP or letter grading.


145C. Public Law and Judicial Process: Constituional 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 controls of administration action, substantive and procedural limits on administrative discretion imposed by legislation, executive and judicial agencies, and sources of legal powers of administrative bodies within their power. P/NP or letter grading.

145A. Public Law and Judicial Process: Law—Rights of Accused. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional rights of persons accused, and conviction by (1) ecclesiastical leaders, with attention to how protections have changed through history. P/NP or letter grading.


146D. Organization Theory, Public Policy, and Administration: Theories of Organization and Decision Making. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of theoretical frameworks for studying public and private bureaucracies, with emphasis on ideologies, values, behavioral patterns, 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). 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 actors. Subsectors as 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. Introduction to historical development of American politics and ideas and institutions that drive durable change over time. Examination of theories, concepts, and case studies include housing, schools, and taxes; immigrant and ethnic minority subcategorization; suburban sprawl and uneven growth; suburban decline; and regionalism. P/NP or letter grading.

147B. American Political Development: Period In. (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 content of contemporary American politics. Topics include 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: Institution. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one American historical period and its development over time, or interaction of American politics and some aspect of culture and society. Assessment of broader political environment of politics, isolating points of conflict, context, and pressure for change. Possible topics include party development, Constitution, business regulation, and politics and religion. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

149. Special Topics in American Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: course 40. Intensive examination of one or more special problems appropriate to 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. Also see course 117

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, assassi- nation, 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 seniors. Comparative study of government and politics in contemporary Africa, with special attention to state/ society relations, interaction of economics and political development, institutional politics, 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. Examination of interactions of economic and political factors in African development, with special attention to role of external 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 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 Relations [M150]). Lecture, three 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 combination of readings, lectures, and discussions to better understand causes, consequences, and policies to address most important political and policy challenges. Offered in a specific term. P/NP or letter grading.

152A. Comparative Government and Politics of Western Europe: West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Comparative study 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. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Comparative study of government and politics in Latin America, with special attention to legacy of Soviet Union. P/NP or letter grading.

154A. Government and Politics of Latin America. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government and politics in Latin America, with special attention to legacy of Soviet Union. P/NP or letter grading. 154A. States of Middle America. En- forced requisite: course 50 or 50R; 154B. States of South America.

156A. Government and Politics of Post-Communist States: Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for 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, Iran, and Iraq. P/NP or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for seniors. Survey of political environment in the Southeast Asian states. Use of comparative analysis to address major problems confronting region, including democratization, economic growth, drug trade, deforestation, and security threats. Letter grading.

159A. Government and Politics of China: Chinese Revolution and Age of Mao Zedong. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Survey of modern Chinese politics as a result of the legacy of the Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socioeconomic foundations and political dynamics of revolution in modern China.

159B. Government and Politics of China: China in Age of Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Survey of China’s political and ideolog-
160. Government and Politics of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Structure and operation of contemporary Japan, with special attention to domestic political forces and problems.

163A. Discourse before Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Transformation of language used to talk or write about politics across states preceding emergence of universal adult franchises. Problems of collective action in oppression, contribution of shared identities to organizing collective action, role of discourse in cueing awareness of shared identity, evidence across time and space of association between discursive distancing and undemocratic rule (monarchy, exclusive republics, dictatorship). Letter grading.

163B. Colonialism, Discourse, and Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Transformation of language used to talk or write about politics across the era of European colonialism and resulting shifts in identity ensuing in political change. Theories of democracy, dynamics of colonial encounter between Europeans and peoples living outside Europe, evolution of collective and individual identities of power and interaction between institutions of power and collective and individual identities, consequences of sharing identity for collective action, transformation of discourse in response to colonialism and ensuing enfranchisement in Europe, North America, and Southwest Pacific, spread of enfranchisement following discursive transformations in Russia and in selected states emerging in formerly colonized territories. Letter grading.

164A. Roots of Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of democracy from its beginning age, the ancient Greece to present day. Techniques of comparative politics used to evaluate major arguments about why different countries become democratic at different times, and why some remain authoritarian. P/NP or letter grading.

164B. Fascism and Right-Wing Extremism: Historical and Present Day. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of fascism in twenty-first century Italy, Japan, and Eastern Europe; its social support and ideology. Focus on Germany, including Nazi economic policy (Toozze, Wages of Destruction). To today’s genocidal events in Europe and elsewhere that 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 activists. Letter grading.

166. Comparative Constitutional Design. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of major national political-legal systems such as presidencialism versus parliamentary, unicameralism versus bicameralism, two-party versus multiparty systems, federal versus unitary systems, plurality versus proportional representation systems, etc. Method of analysis is rational choice (political actors are assumed to optimize their results given institutional constraints and action of other actors). Result is that institutions affect political outcomes in systematic ways. P/NP or letter grading.

M167C. Political Economy of Development. (4) (Same as International Development Studies M120.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries. Lecture and recitation. Letter grading. May be applied toward either Field IV or V. Letter grading.

167D. Political Institutions and Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparatory reading: one statistics course. Designed for juniors/seniors. Data analytic approach to question of why some countries are rich and others are poor; with special attention to evidence about political institutions and economic development. May be applied toward either 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. Major approaches to study of comparative politics. Concepts and methodology of comparative analysis. Letter grading.

169. Special Studies in Comparative Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: two courses in Field IV. Designed for juniors/seniors. Comparative examination of one or more special problems appropriate to comparative 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 V: Methods and Models

170A. Studies in Statistical Analysis of Political Data. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 6 or 6R. Designed for juniors/seniors. Use of statistical methods to interpret data and test theories from various fields in political science and use of quantitative evidence in constructing and testing the linkage between political phenomena. Letter grading.

171A. Applied Formal Models: Collective Action and Social Movements. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Study of collective action and social movements. Historical and contemporary examples of various theoretical perspectives, including game-theoretic, social network, structural, and identity approaches, illustrated by case studies from various fields. P/NP or letter grading.

171B. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do political attitudes, beliefs, and behaviors through care negotiation and bargaining in different contexts. Experiential exercises with emphasis on various aspects of negotiation, including coalition formation, honesty, and role of age grading.

171C. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Applications of game-theoretic reasoning to common strategies and tactics in legislative settings. P/NP or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. Experiential exercises with emphasis on various aspects of negotiation, including coalition formation, honesty, and role of age grading.

172. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 30. Designed for juniors/seniors. Intermediate topics in game theory applied to political problems; interaction; bargaining and negotiation; consequences of incomplete information and information asymmetries. P/NP or letter grading.

178. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Intensive examination of one or 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 M114C and Labor Studies M114C.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper-division course outside history, political science, or sociology. Required for seniors. Course introduces students to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political thought, historical contest 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 Latin American Communities. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper-division course outside history, political science, or sociology. Required for seniors. Course introduces students to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political thought, historical contest of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M181B. U.S. Latino Politics. (5) (Formerly numbered 181B.) (Same as Chicano/a and Central American Studies M155B.) Lecture, four hours; discussion, one hour (when scheduled). Examination of history and contemporary role of Latinos in U.S. political system. Topics include historical relations of immigration and migration; civil rights movements; increases in citizen registration, and voting in 1980s and 1990s; new wave of anti-immigrant attitudes; Development, Relief, and Education for Alien Minor (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 Political 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, political science, or sociology. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups, with black Americans being theory case for minority objectives: (1) to provide descriptive information about social, political, and economic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

M183. Experiments in Racial and Ethnic Politics. (4) (Same as Psychology M136C.) Lecture, three hours; laboratory, one hour. Research practice in consisting of designing, analyzing, and reporting effective research results. Topics include studying people’s political attitudes, beliefs, and behaviors through careful designed experiments. 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 seniors/juniors. Overview of historical, political, and identity of African Americans in Spanish and Lusophone Caribbean, South America, and Central America. Exploration of issues of identity in context of Afro/Latino migration to U.S. P/NP or letter grading.

M184B. Black Experience in Latin America and Caribbean II. (4) (Same as African American Studies M154D.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors/juniors. Examination of issues regarding race and ethnicity in Latin America, with emphasis on comparisons to U.S.
186. Special Studies in Race, Ethnicity, and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisites: course 40. Designated for juniors and 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

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


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 to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquium in Political Science. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. 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. May be repeated for credit. P/NP grading.

191A-191F. Variable Topics Research Seminars for Majors. (4 each) Seminar, three hours. Preparation: two upper-division courses in field in which seminar is offered. Limited to junior/senior Political Science majors with 3.25 grade-point average in upper-division political science courses. Consult Schedule of Classes for topics to be offered in specific term. Reading, discussion, and development of culminating research project. May be repeated for credit. P/NP or letter grading.

191A. Political Theory; 191B. International Relations; 191C. Politics; 191D. Comparative Government; 191E. Methods and Models; 191F. Race, Ethnicity, and Politics.

191D. CAGPP Washington, DC, Research Seminars. (8) Same as Communication M191DC, History M191DC, Public Affairs M191DC, and Sociology M191DC) Seminar, three hours. Limited to CAGPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

191H. Research Design Seminar for Honors Thesis. (4) Seminar, four hours. Preparation: course in 191 series, 3.5 grade-point average in upper-division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors theses. Students define their research topic, select suitable research method, design appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Class sessions emphasize critical and constructive discussions of students’ research topics and 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 each term. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Political Science. (2) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and literature in field of research of faculty members or students. May be repeated for credit. P/NP grading.

195. Quarter in Washington, DC, Research Seminars. (4) Same as History M195DC and Sociology M195DC.) Seminar, three hours. Limited to 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 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.

195CE. Community and Corporate Internships in Political Science. (2) Educational and Enrichment Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195DC. Community and Corporate Internships in Political Science. (4) Educational and Enrichment Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

Graduate Courses

Formal Theory and Quantitative Methods

200A. Probability and Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisite: course 200A. Preparation: prior exposure to coding in R. Introduction to research design and regression analysis. Basic tools of statistical inference and application to practice of regression analysis. Emphasis on relationship of these statistical tools for drawing causal inferences; prediction and description also covered. Focus on principles of statistical inference, difference between design-based inference and model-based inference, identification versus estimation, building blocks of causal inference, characterization of regression diagnostics and tests, identification of regression models through to validity of our estimates. Students become comfortable coding in statistical programming language R. S/U or letter grading.

200B. Regression Analysis for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisite: courses 200A, 200B. Preparation: familiarity of basic probability theory and statistics, multivariate calculus, basic linear/matric algebra. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation. Strategies for accessing and reporting evidence of causality from non-experimental evidence. Designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variables estimation, regression discontinuities designs, and sensitivity analyses. Reinforcement of some basic skills from probability and statistics. S/U or letter grading.

200C. Causal Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisite: courses 200A, 200B. Preparation: familiarity of basic probability theory and statistics, multivariate calculus, basic linear/matric algebra. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation. Strategies for accessing and reporting evidence of causality from non-experimental evidence. Designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variables estimation, regression discontinuities 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: to theory and practice of maximum likelihood analysis in political science, including discrete choice models, event count models, and duration models. Lectures combine traditional formal mathematical derivation for maximum likelihood models with more intuitive development of maximum likelihood models using 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 causal inference at level of course 200D. Covers design, analysis, and interpretation of experimental research in social sciences. Emphasis on field experiment, though most issues that are covered are relevant for other modes including laboratory, laboratory-in-the-field, and statistical 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 for credit to students with credit for course 200Y. Practice in applying statistical techniques to political science data. S/U or letter grading.

200Y. Data Analysis Workshops. (2–2) Seminar, three hours. Enforced requisite: course 200C. Course 200Y is enforced requisite to 2002. Not open for credit to students with credit for course 200X. Practice in applying statistical techniques to political science data. S/U or letter grading.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools without mathematical rigor. Application of Model building, collective goods, unanimity and the social contract, voting rules, paradoxes and impossibility theorems, stability, individual liberty and decen- tralization, 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 political economy, philosophy, or mathematics with ability for deductive reasoner. Introduction to abstract, deductive study of voting systems and other collective-choice processes. Axiomatic method applied to political and economic theory, concept of rationality, and agenda control, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) Discussion, three hours. Preparation: knowledge of elementary calculus. Introduction to techniques of economic analysis and survey of major topics in economic theory. Investigation of models of regulation, trade protection, collective bar- gaining, and economic growth as time permits.

203B. Economic Theory and Methods for Political Science II. (4) Discussion, three hours. Preparation: prerequisite 203A. Continuing survey of microeconomic techniques used in formal political science, with focus on market failures and on modeling individual choice in nonmarket situations. Specific topics include ex-ternalities, public goods, market failures, allocation mechanisms, optimal action, spatial models, structure-induced equilib-rium, and information asymmetries.

204A. Game Theory in Politics I. (4) Seminar, three hours. Survey of game theory, with emphasis on uti-lizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial reg-ulation, bureaucracies, interest groups, and party competition. Designed to help students become in-formed 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. Preparation: course 204A. Intermediate game theory course. Topics include games of incomplete information, cheap talk games, and bargaining theory. Applications concern political participation, public goods, legislatures, industry regulation, bureaucracies, interest groups, and party competition. Designed to help students get advanced game theory in their research. S/U or letter grading.

204C. Game Theory in Politics III. (4) Seminar, three hours; fieldwork, eight hours. Preparation: courses 204A, 204B. Advanced game theory course, with em-phasis on new and/or advanced techniques. Topics include timing games, stochastic games, and mecha-nism 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.


Survey and applications of major solution concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading.


M206E. Bayesian Econometrics. (4) Same as Eco-nomics M232A.) Lecture, three hours. Requisites: Economics 231A, 231B. Subjective probability, intro-duction to decision theory, Bayesian analysis of re-gression, sensitivity analysis, simplification of models, regression. May be repeated for credit. S/U or letter grading.

209. Special Topics in Formal Theory and Quantita-tive 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 is-sues in political theory. Further 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 selected text from postcolonial, spatial, feminist, postmodern, and post-structuralist 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 de-mocracy. 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, Nuss-baum, etc.) in light of alternatives which have been proposed to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

217. Selected Texts in Political Theory. (4) Seminar, three hours. Critical examination of major texts in po-itical theory, with emphasis on their contribution to the philo-sophic system, their relations to contemporary polit-ical and intellectual currents, and importance of system for present-day political analysis. S/U or letter grading.


International Relations

220A. International Relations Core Seminar I. (4) Seminar, three hours. Introduction to international rela-tions 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 de-ployment of research tools in this area. Letter grading.

220C. International Relations Research Seminar. (4) Seminar, three hours; tutorial meetings, to be ar-ranged. Design, implementation, and presentation of research project in international relations within com- bination 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, coercive diplomacy, crisis management, war termina-tion, and negotiation. Use of various theoretical ap-proaches 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 for-eign policy-making at individual, small group, bureau-crat, and domestic politics levels. Application to se-lected cases in American foreign policy.


230. Contending Perspectives on International Pol-itical Economy. (4) Discussion, three hours. Survey of various theoretical approaches to international po- litical economy.

231. International Political Economy I. (4) Seminar, three hours. Interaction between international trade and domestic political economics of both industrialized and industrializing societies.

232. International Political Economy II. (4) Seminar, three hours. Designed to prepare students for setting up and solving simple institutional design, political economy macro, signaling, and participation models, as well as two-level game models of do-mestic politics and international conflict and coopera-tion, 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, advanced graduate students, and advanced graduate students. Research paper of publish-able 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. Major research paper re-quired. 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 ap-proaches that have been important in field of comparative politics, with selection of theories and methodologies that have comprised field over time. 240B. Survey of contemporary research approaches and problems in field of comparative politics, with a range of theories and methodologies used by practi- tioners 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 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 Politics 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 decommunization; 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 presidentialism vs. parliamentary systems, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and pluralism 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. Legislative Behavior 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.


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


261A. 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 processes, 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 change 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.

261D. Seminar: Political Psychology. (4) (Same as Psychology M228B.) Seminar, three hours. Requisite: course M261A or Psychology 220A. Examination of political behavior, political socialization, racial conflict, mass public opinion, and policy, 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 empirical research problems and findings. S/U or letter grading.


270. Legislative Behavior. (4) Seminar, three hours. Analysis of major approaches to study of representative institutions, with special emphasis on assumptions, concepts, methods, and theoretical implications associated with each approach. S/U or letter grading.

271. Executive Politics and Presidency. (4) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American Presidency. Special attention to theories of organization and personality and relationship between executive and other institutions and groups. S/U or letter grading.


273. American Political Development. (4) Discussion, three hours. National political institutions in historical perspective, theories of state building, state-society relations, political culture, and change. 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-Ethnic Politics. (4) Seminar, three hours; field work, eight hours. Seminar course in race-ethnic 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 macroeconomic, forms of political behavior, 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. 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 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.
495A. Teaching Political Science 1, (4) Seminar, three hours. Intensive training during Spring Quarter. Required of all new PhD students and potential departmental teaching assistants. Practical and theoretical issues in teaching of political science. 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 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 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
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Bonnie T. Zima, MD, MPH, Associate Chair, Academic Affairs

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 support personal and professional 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, 37–380A Semel Institute, 310–794–5175.

Psychiatry and Biobehavioral Sciences
Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and of critical thinking about topics of current interest in the integration of developmental psychopathology, with faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

79. Applied Positive Neuroscience: Skills for Integrating Psychology in the 21st Century. (3) Lecture, one hour. Not open to students with credit for Community Health Sciences 179. Intrapersonal, interpersonal, and intergroup contributions to wellbeing, and how activity and chemistry of key brain regions contribute to each, e.g. influences of mindfulness on prefrontal cortex activity, or how oxytocin system is altered by social interaction. Students learn to recognize relationship between cognitive, social, and emotional competence for healthy development, and how to apply it to their own lives. Through neuroscientific context, introduction to multi-disciplinary 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.

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.

99C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per quarter unit. Entry-level research for 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. (6) Seminar, three hours. Limited to junior/senior Neuroscience or Psychology majors. Integration of pr 79. Applied Positive Neuroscience: Skills for Integrating Psychology into the 21st Century. (3) Lecture, one hour. Not open to students with credit for Community Health Sciences 179. Intrapersonal, interpersonal, and intergroup contributions to wellbeing, and how activity and chemistry of key brain regions contribute to each, e.g. influences of mindfulness on prefrontal cortex activity, or how oxytocin system is altered by social interaction. Students learn to recognize relationship between cognitive, social, and emotional competence for healthy development, and how to apply it to their own lives. Through neuroscientific context, introduction to multi-disciplinary 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.

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178. Cannabis and Cannabinoids: From Pharmacology to Public Policy. (4) Lecture, three hours. Designed for undergraduate students with biology, human biology, and societal science, policy, and law. Offers comprehensive didactic information concerning cannabis use, cannabinoid physiology, and cannabinoid use in society. Relevant to critical thinking and professional considerations involving career in medical, social science, or policy fields. Enforced corequisite: course 188SC. Limited to junior/senior USIE facilitators. S/U or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as a tutorial for enhancing survey research on psychosocial problems. Review of specific topics and current research literature. Participation in written and oral presentations. Presentations based on scientifically validated procedures. Offered once only. May be repeated for credit. Individual contract required. P/NP or letter grading.

190. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as a tutorial for enhancing survey research on psychosocial problems. Review of specific topics and current research literature. Participation in written and oral presentations. Presentations based on scientifically validated procedures. Offered once only. May be repeated for credit. Individual contract required. P/NP or letter grading.
M270. Neural Basis of Memory. (4) (Same as Neuroscience M273.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrated into models for how behavioral phenomena of memory arise. Discussion of invertebrate memory, cortical and hippocampal systems, associative memory, and frontal lobes and primary memory.

M272. Psychological Anthropology. (4) (Same as Anthropology M237.) Seminar, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include the relationship between things as culture and theory, culture and personality, and culture psychosis. Discussion of questions relating to how anthropologists assess the things they relate to culture. Topics vary from term to term. May be repeated for credit with topic change. S/U or letter grading.


Z6A-Z6B-Z6C. Behavioral Therapy in Educational Settings. (4–4–4) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with exceptional children in conducting systematic observations, administering formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical background furnished through one-hour weekly lecture. S/U or letter grading.

M284A-M284B. Principles of Neuroimaging I, II. (4–4) Seminar, one hour; laboratory, one hour; lecture, one hour; laboratory, four and one hour. Preparations: competence in integral calculus, electricity and magnetism, computer programming (any language), general statistics. Requisite: course 292. Course M284A is requisite for 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, magnetoencephalography, transcranial magnetic stimulation, near infrared spectroscopy. Letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Neuroscience M285, Physics and Biology in Medicine M285, and Psychology M278.) Lecture, three hours; discussion. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained in different 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.

Z67. 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.

M286. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Community Health Sciences M294.) Lecture, four hours. Requisites: Community Health Sciences 100 and Epidemiology 100, or prior social sciences courses. Overview of social and cultural determinants of both transmission and prevention of HIV/AIDS throughout the world. Letter grading.


M290. 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/E 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 practice in preparing 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. Substantive Issues in Substance Abuse I. (2) Seminar, two hours; discussion, one hour. Neuropsychology 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. Substantive Issues in Substance Abuse II. (2) Seminar, two hours; discussion, one hour. Drug use patterns and treatment issues in specific populations such as women, adolescents, homeless, multiply diagnosed, and special populations. Exploration of relationship between drug abuse, sexuality, and HIV/AIDS. S/U grading.

295C. Substantive Issues in Substance Abuse III. (2) Seminar, two hours; discussion, one hour. Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of 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, frequent reasons for journal rejection 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 mechanisms, and review process, (3) preparing/writing grants for submission to NIH, including review of components of successful applications, comments on proposals, and what to emphasize in each section, (4) grant mechanisms specifically designed for new investigators, (5) human subjects section for grant applications and IRB issues, and (6) writing (specific 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: 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.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants’ current research. Critical review of recent articles on drug abuse treatment issues. Discussion in which fellows believe they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Preparatory submission of written reports to be instructed by instructor and student prior to enrollment; additional information and proposal forms available in Office of Education, 38–216 Semel Institute. One-to-one supervision of individual therapy cases, including analyses of patient data, supervision of ongoing treatment, informal didactic sessions on personality theory, and applications to patient management. S/U or letter grading.

405. Trauma and Sexual Abuse Research Seminar. (4) Seminar, three hours; discussion, one hour. Designed for graduate and medical students and residents who work with clients affected by trauma and members of interdisciplinary teams interested in emerging research within the context of current systems of care. Major problems include conduct disorders, attention deficit disorder, depression, anxiety, and learning disabilities. S/U grading.

407A-407B-407C. Clinical Hypnosis Seminars. (2–2–2) Seminar, two hours. Integrated, experientially oriented sequence with lecture, discussion, demonstration, practice, and assigned readings. Guest speakers will be drawn from in specific hypnotic applications and populations, and video programs included. Trainees and faculty members in healthcare professions as well as licensed healthcare providers from community (MCEP credit available) encouraged to enroll. For training in social work, psychology, and psychiatry, completion of minimum of one year of supervised training in psychotherapy or behavior therapy required for grading. 407A. Fundamentals of trance utilization, including diagnosis, counterconditioning, and facilitating exploratory trance experiences. 407B. Application of hypnotic interventions in specific clinical situations and assessment of specific-and generalizability. 407C. Application of hypnotic interventions in specific clinical situations and assessment of generalizability. S/U grading.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) (Same as Physics and Biology in Medicine M424.) Discussion, 90 minutes. Limited to 10 students. Current topics in functional neuroimaging with emphasis on novel applications, analysis, and acquisition methods. Presentation and critique of student papers. Overemphasis on magnetic resonance imaging. Example areas include tractography through diffusion tensor imaging, patient-related experimental designs, parallel receiver MR imaging, integrated electrophysiological and image acquisition. S/U grading.

425. Teaching Case Conference. (1) Review of diagnostic and treatment issues in patient cases, with expert-off unit consultants. S/U or letter grading.


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 interdisciplinary interventions. 431B. Neurodevelopmental disorders, head injury, low birth weight, tumors, and epilepsy. S/U or letter grading.

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 trainees learn 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 and discussion, 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.

470. 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) Lecture, 90 minutes; discussion, one hour. Examination of 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) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

483. Human Genetics Seminar. (No credit) Seminar, one hour. Preparation: introductory genetics course. Weekly lecture series intended for those interested in human genetics or in specific topic to be presented. Speakers are invited for their expertise or research in some special area related to human genetics and may be from UCLA or elsewhere. No grading.

M490. Educational Advocacy. (2) same as Law M431.) Clinic, two hours (12 weeks). How to provide educational advocacy based on IDEA, ADA, and Section 504 of Rehabilitation Act on behalf of children with learning disabilities, behavior disorders, and mental retardation. S/U or letter grading.
Psychology is a subject of considerable inter-Yalda J. Uhls, PhD
Philip Sayegh, PhD
Adjunct Assistant Professors
Danielle Keenan-Miller, PhD
Adjunct Associate Professor
William E. Grisham, PhD
Karen B. Givvin, PhD
Adjunct Professors
Steven J. Bennoun, PhD
Lecturers PSOE
Jennifer A. Sumner, PhD
Pamela J. Kennedy, PhD
Han Du, PhD
David Clewett, PhD
Bridget L. Callaghan, PhD
Avishek Adhikari, PhD
Assistant Professors
Erica A. Cartmill, PhD
Katherine H. Koegodt, PhD
Carolyn M. Parkinson, PhD (Bernice Wenzel and Wendell Jeffrey Endowed Term Professor of Cognitive Neuroscience)
Jesse A. Rissman, PhD
Jennifer A. Silvers, PhD (Bernice Wenzel and Wendell Jeffrey Endowed Term Professor of Developmental Neuroscience)
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Philip Sayegh, PhD
Yalda J. Uhs, 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—both 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, and affective neuroscience, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and clinical scientists.

Fieldwork and Research Opportunities
Many research and fieldwork opportunities are open to students who wish to expand their knowledge and broaden their background in the field of psychology. These experiences can be enriching and help bring undergraduate students closer to understanding the importance of research and internships, including their applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 99, 185, 192, 194A through C194D, 195A, 195B, 196A, 196B, 199A, or 199B. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward the undergraduate degree. Information about these courses and programs is available from the Undergraduate Advising Office.

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 investigation of infants, toddlers, their families, and caregivers. In addition, the program serves as a primary internship site for students in the Applied Developmental Psychology (ADP) minor, enabling ADP students to acquire firsthand experience observing and caring for infants and toddlers in a professional group setting.
UCLA Psychology Clinic

The UCLA Psychology Clinic in the Department of Psychology is a major training center for students in the clinical psychology PhD program, one of the top-ranked programs in the country. It provides a broad range of psychological services to children and adults, including assessment and individual, couples, family, and group therapy. Clients cover the entire age range and represent diverse populations in the community.

Student therapists receive very close supervision and utilize research-based cutting-edge psychological interventions. Students and faculty members are also involved in a variety of research projects through the clinic.

Undergraduate Majors

Psychology BA

The Psychology major is the most general of the three majors and offers both broad and in-depth coverage of the fundamental and traditional areas of psychology. It provides students with a strong foundation for postgraduate education in psychology and can serve as excellent background to prepare them for further training in such fields as law, education, government and public policy, business, and many of the health-related professions. Its basic liberal-arts orientation also provides students with an excellent foundation for immediate postbaccalaureate careers in many areas, particularly ones in which an understanding of human behavior and its diversity of expression would be an asset.

The requirements described below represent the minimum requirements in satisfaction of the preparation and the major. Additional courses in psychology, statistics, and related sciences, as well as other types of research and fieldwork experiences, are highly recommended if students plan to pursue graduate work in psychology and related fields. Under special circumstances, graduate-level courses can be taken by undergraduate students, although such courses may not be applied toward degree requirements for the major. For additional information, contact the Undergraduate Advising Office.

Learning Outcomes

The Psychology major has the following learning outcomes:

- Demonstrated ability to design an experiment in a field of psychology
- Ability to formulate a hypothesis based on knowledge of current literature
- Demonstrated application of principles of control groups and appropriate methodology
- Demonstrated awareness of major research methods in chosen area of psychology
- Demonstrated ability to apply appropriate statistical methods in analyzing data
- Demonstrated ability to write up 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

Entry to the Major

Pre-major

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology pre-major. Psychology pre-majors can petition to declare the Psychology major once they have (1) satisfied all the preparation for the major requirements and (2) are accepted into the major through a competitive application process for students who entered UCLA as first years or (3) file a petition to declare the Psychology major for students who entered UCLA as transfers.

First-Year Students

Students may declare the Psychology pre-major once they have satisfied all the preparation for the major requirements. Pre-major students must petition to declare the Psychology major once they have satisfied all the preparation for the major requirements and are accepted into the major. Students who repeat more than two preparatory courses enter a competitive application process with the above deadline. Students with a grade-point average between 2.5 and 2.89 in the preparation coursework and have met all other Psychology pre-major requirements are guaranteed entry into the major and must then submit the application by the above deadline. Students with a grade-point average between 2.9 or higher in the preparation coursework and have met all other Psychology pre-major requirements are guaranteed entry into the major and must then submit the application by the above deadline.

Transfer Students

Transfer applicants to the Psychology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course equivalent to Life Sciences 7A or 15 or Physiological Science 3, one general chemistry or general physics course, one philosophy course, one introduction to psychology course, and one course from statistics (recommended), finite mathematics, calculus, computer science theory, or computer programming in C++.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Policies

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

Requirements

Preparation for the Major

Required: Life Sciences 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 14A or 17 or 20A or Physics 1A or 5A or 10 or 11; one course from Program in Computing 10A, Statistics 10, or one term of calculus; one course from Philosophy 1, 2, 3, 4, 5, 6, 7, 8, 9, 21, 22, 22W, 23, 31; Psychology 10, 100A, 100B.

The Major

Required: (1) Five core courses, with at least two from each category and a fifth course from either category: (a) Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, and (b) 127A or 127B or 127C, 130 (or one course from 133A through 133I or 161), 135, 150; (2) one laboratory/fieldwork course from 101, 111, 116A, 116B, 121, 126, 131, 136A, 136B, 151, 186A through 186D; (3) four additional upper-division elective courses (16 units) in psychology.

Honors Program

Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply.

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.

Policies

Preparation for the Major

Each of the courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C- or better in the remaining courses).

Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B are only open to students who have declared the Psychology pre-major before the term in which they plan to enroll. It is recommended that students with no background in introductory statistics
Learning Outcomes
The Cognitive Science major has the following learning outcomes:

- Ability to identify a research topic and hypothesis to test, or a fieldwork project and goals
- Demonstrated organization and integration, in a clear manner and in the student’s own words, of information related to a topic or project
- Demonstrated ability to find and utilize supporting literature relevant to a project or topic
- Successful relation of the paper to the student’s laboratory or fieldwork experience
- Ability to discuss results in front of a peer group: verbally communicate ideas motivating the experiment, make the experiment clear to those not familiar with the methods, and answer questions

Entry to the Major
Pre-major
Students need to file a petition in the Undergraduate Advising Office to declare the Cognitive Science pre-major. They are then identified as Cognitive Science pre-majors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Cognitive Science major. Questions about the major should be directed to the Undergraduate Advising Office.

Transfer Students
Transfer applicants to the Cognitive Science major must provide: (1) satisfy the preparation for the major requirements or any preparation course more than once are denied admission to the major. Each of the required courses must be taken for a letter grade, 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. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or high-est honors.

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

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be taken early in the career; these courses are open only to students who have declared the Cognitive Science pre-major before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

The Major
Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division cognitive science 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.

Honors Program
Majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or high honors.

Psychobiology BS
The Psychobiology major is designed for students who plan to go on to postgraduate work in physiological psychology, neuroscience, behavioral aspects of biology, or the health sciences. Psychobiology is the study of behavior from a biological perspective. It includes neural, experimental psychological, natural history, genetic, comparative/evolutionary, and developmental approaches to understanding human and animal behavior.

The requirements described below include sufficient preparation if students plan to pursue graduate work in any of the above fields; however, they may want to include advanced courses in psychology and related sciences as well as other types of research and fieldwork experiences.

Learning Outcomes
The Psychobiology major has the following learning outcomes:

- Demonstrated ability to use working knowledge of the nervous system to deduce the consequence of nervous system dysfunctions
- Demonstrated understanding of molecular events at a cellular level by describing the physiological consequences of such events in qualitative and quantitative terms
- Demonstrated ability to utilize knowledge of sensory systems by describing their processes in both quantitative and phenomenological terms
- Demonstrated ability to choose and apply the appropriate quantitative analysis tools to a data set and meaningfully interpret the results of the analysis
- Demonstrated ability to read primary literature in the field and evaluate the validity of conclusions in light of the methodology and statistical analyses used as well as the logic of assertions presented
- Demonstrated ability to communicate the results of laboratory work orally or in writing with appropriate graphic depictions of the data
- 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

Entry to the Major
Pre-major
Students need to file a petition in the Undergraduate Advising Office to declare the Psychobiology pre-major. They are then identified as Psychobiology pre-majors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychobiology major.

Transfer Students
Transfer applicants to the Psychobiology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C; one year of 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.

Policies
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 who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Requirements
Preparation for the Major
Required: Psychology 10, 100A, 100B, and the Life Sciences Core Curriculum.

Life Sciences Core Curriculum
Required: Chemistry and Biochemistry 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 or 31AL, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

The Major
Required: (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), 116A or 116B or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127A, 127B, 127C, 130, 133A through 133I, 135, 150, 161; (3) 16 units of graded elective courses from the following list: Ecology and Evolutionary Biology 112, 113A, 114A (no more than one from this group), Psychology 111, 112A through 112E, M117A, M117B, M117C, 119A through 119Y, 124K, 137A, 137G, 152, 161, 162, 164, M166, 186D, 191CH (only if content is approved by the undergraduate vice chair), Chemistry and Biochemistry 153A, 153L, Computational and Systems Biology M187, Ecology and Evolutionary Biology 100, 102, 105, 106, 110, 111, 115, 117, C119A, 120, 121, 122, 124A (only 4 units may be applied toward the major), 129, C135, 164, 170, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 185A, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, CM156, Neuroscience 102, Physiological Science C130, C144, 146, 147, 166, 173.

Honors Program
Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply.

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.
Policies

Preparation for the Major
Each of the preparation for the major courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B; C– or better in the remaining courses) with a 2.0 overall grade-point average.

Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Psychobiology pre-major before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

The Major
Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper-division psychobiology electives. All three courses must be completed to receive psychobiology elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements, and each must be taken for a letter grade.

Honors Program
Majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or highest honors.

Undergraduate Minors

Applied Developmental Psychology Minor
The Applied Developmental Psychology (ADP) minor is designed to (1) provide a coherent, challenging academic program focused on investigating, understanding, and supporting the development of young children and their families, (2) teach undergraduate students how to apply theories, research methods, and research findings to practical concerns, and (3) prepare students to join or receive further training in various child-related professions.

Admission
The minor is open to all enrolled UCLA students (including Cognitive Science, Psychobiology, and Psychology majors) who have an overall grade-point average of 2.0 or better and have applied and been accepted into the program. Qualified students are admitted into one of two annual cohorts (one beginning in fall, the other in spring) to complete three consecutive terms of specialized coursework alongside a hands-on teaching internship (86 hours per term) at one of several UCLA child care centers. For more information about applying to the minor, contact the ADP academic coordinator by e-mail or see the department website. For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office.

The Minor
Required Lower-Division Course (4 units): Psychology 10.
Required Upper-Division Courses (24 units): Psychology 134A (must be taken concurrently with course 134D), 134B (must be taken concurrently with course 134E), and four additional courses from Education 120, 132, Psychology 127C, 129F, 130, 131, 132A, 132B, 133B through 133I, 134F, 134G, 134I, 143, 161, 167, 199A or 199B (content must be approved by the Undergraduate Advising Office), Sociology M174. One of the four additional courses must include either Psychology 130 or one course from 133B through 133I.

Internship Requirement/Fieldwork Component (8 units): Psychology 134C, 134D (must be taken concurrently with course 134A), 134E (must be taken concurrently with course 134B).

Students work as interns for three consecutive academic terms at one of several UCLA child care centers serving infants, toddlers, and/or preschool-age children. The internship provides hands-on experience working with young children and opportunities to closely observe children and teachers.

Policies
No more than two courses may be applied toward both this minor and a student’s major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course, except for the fieldwork component of the internship courses, must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Cognitive Science Minor
The Undergraduate Council of the UCLA Academic Senate voted to suspend admissions to the Cognitive Science minor effective Fall Quarter 2021. Students currently in the minor are not affected by the admissions suspension.

The Cognitive Science minor is designed to introduce students to cognitive science topics as addressed in a number of different disciplines, such as biology, computer science, engineering, linguistics, mathematics, philosophy, and psychology, while allowing them to pursue a more in-depth study of cognitive science topics within specific areas of their own choice.

The minor consists of two parts. In the first part students complete background courses and satisfy a computer programming experience requirement. In the second part they select courses from three clusters of upper-division courses that have been organized to reflect different aspects of cognitive science. Students take five courses from three clusters, with no more than three courses from any one cluster.

Admission
The minor is open to all enrolled UCLA students, other than Cognitive Science majors, who have an overall grade-point average of 2.0 or better. After completing two background courses, students must make an appointment with an adviser in the Psychology Undergraduate Advising Office by e-mail to declare the minor. The three background courses must be completed by the end of the summer quarter of the third year.

The Minor
Required Courses (32 units): Psychology 85; one course from 15, 100B, Linguistics 1, or 20; and either Program in Computing 10A or Psychology 20A.

Students must complete five total courses from the following three clusters, with no more than three courses from any particular cluster: (1) biological basis of cognition cluster—Linguistics C135, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Psychology 110, 112E, 115, 116A or 116B, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Physiological Science M180C), 119C, 119F, M119L, M119N, 137A, 137G, 161, M166; (2) human cognition cluster—Anthropology 124O, 136A, Communication 129, Psychology 120A, 120B, 121, 124A through 124K, 133B, 133C, 133E, 186A through 186D; (3) mind and language cluster—Anthropology M150, Communication 118, 119, 126, M127, Linguistics 120A, 120B, 120C, 130, 132, C135, 185A, Philosophy 124, 125, 126, C127A, C127B, 129, 170, 172, Psychology 124A.

Policies
No more than two courses may be applied toward both this minor and a student’s major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

Psychology MA, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 prerequisites. P/N or letter grading.

15. Introductory Psychobiology. (4) Lecture, three hours. Designed for nonmajors. Survey of genetic, evolutionary, physiological, pharmacological, 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/N 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. P/N or letter grading.

20A. MATLAB Programming for Behavioral Sciences. (4) Lecture, two hours; laboratory, one hour. Prior programming experience not required. Introduction to MATLAB and programming methods useful in experimental psychology, including writing of code for conducting experiments, analyzing data, and modeling. P/N or letter grading.

20B. Advanced Topics in MATLAB Programming for Behavioral Sciences. (4) Lecture, two hours; laboratory, one hour. Requirements: course 20A. Introduction of advanced topics in MATLAB programming for behavioral sciences, including Psychtoolbox, advanced MATLAB functions, and input/output, simulations and modeling, and efficient MATLAB coding. Active programming during class and for homework required. P/N 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/N 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 (4) Seminar on the psychology of stress: course 10. Limited to freshmen. Physiological and psychological processes related to stresses 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/N 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 assigned by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Signed 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.

120C. Psychobiology of Anxiety and Depression. (4) Lecture, two and one half hours; discussion, 30 minutes. Requirements: 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/N or letter grading.

120D. Animal Cognition. (4) Lecture, 90 minutes; discussion, 30 minutes. Requisites: courses 100A, 100B, 110. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, spatial cognition, timing and counting, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/N or letter grading.

112E. Decision Making and Brain. (4) Lecture, three hours. Requisites: courses 100A, 100PA, 110. Designed for juniors/seniors. Survey of neural mechanisms of decision-making, covering classical and new classical economics. Discussion of theoretical models of valuation and decision making from economics and application to psychological and neuroscience studies of learning and decision making. P/N or letter grading.

115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisites: course 100A, Life Sciences 2 or 7 or 15. Not open to students with credit for courses 100B, 15A, or 15B. Consideration of topics such as motivation, and drug addiction. Evaluation of evidence obtained in laboratory studies conducted in challenging structure to learn how mind works. P/N or letter grading.


110. Fundamentals of Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B. General laboratory course for psychology students to acquire key concepts in psychology through active participation in enriched environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in challenging structure to learn how mind works. P/N or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 110. Designed for departmental majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behavior, drinking, and reproduction-related behavior. Discussion of physiological mechanisms that contribute to such behaviors. Consideration of topics such as reinforcement, acquired motivation, and drug addiction. Evaluation of evidence obtained in laboratory studies conducted with animals. P/N or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours. Requisites: courses 10, 100A, 110. Recommended: courses 112A and 112C for juniors/seniors. Presentation of biological and behavioral approaches to fear and anxiety, taken from laboratory and applied research. In addition to overview of major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/N or letter grading.

112C. Psychobiology of Anxiety and Depression. (4) Lecture, two and one half hours; discussion, 30 minutes. Requirements: 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/N or letter grading.

M117A. Neuroscience: From Molecules to Mind—Cellular and Systems Neuroscience. (5) (Same as Molecular, Cell, and Developmental Biology M175A, Neuroscience M101A, and Psychological and Brain Science M180A.) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently). Life Sciences 7C, Physics 1B or 1BH or 18B or 4B. Students must receive grade of C– or better to proceed to next course in series. Cellular nervous system, neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor systems; how these systems process complex information and control movement. P/N or letter grading.

M117B. Neuroscience: From Molecules to Mind—Developmental and Computational Neuroscience. (5) (Same as Neuroscience M101B, Molecular, Cell, and Developmental Biology M175B, and Physiological Science M180B.) Lecture, four hours; discussion, 90 minutes. Requisites: courses 110C or 115C (C– or better). Life Sciences 7C. Molecular biology of channels and receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular bi-
M119O. Psychology of Aging. (4) (Same as Gerontol 119O.) Required: course 115. Designed for juniors/seniors. Review of current issues in research on cognitive neuroscience of consciousness, with focus on modern theories of conscious perception, especially in visual modality so as to reflect its differences in consciousness research. P/NP or letter grading.

124D. Consciousness: Current Debates. (4) Seminar, three hours. Required: courses 100B, 115. Designed for juniors/seniors. Review of current issues in research on cognitive neuroscience of consciousness, with focus on modern theories of conscious perception, especially in visual modality so as to reflect its differences in consciousness research. P/NP or letter grading.

124F. Thinking. (4) Lecture, three hours. Required: course 120A or 120B. 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.

124G. Cognition and Successful Aging. (4) Lecture, three hours; discussion, one hour. Required: 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.


124B. Fundamentals of User Experience. (4) Lecture, four hours. Required: course 120A or 120B. Designed for juniors/seniors. 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.

122. Laboratory in Cognitive Psychology. (4) Laboratory, four hours. Required: 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.

121. Laboratory in Cognitive Psychology. (4) Three lecture, two hours; discussion, one hour. 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.

120A. Cognitive Psychology. (4) Lecture, three hours; discussion, one hour. Required: courses 100A, 100B. 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.

120B. Sensation and Perception. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B. 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.

120. Laboratory in Cognitive Psychology. (4) Laboratory, four hours. Required: 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.


124B. Fundamentals of User Experience. (4) Lecture, four hours. Required: course 120A or 120B. Designed for juniors/seniors. 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.

124G. Cognition and Successful Aging. (4) Lecture, three hours; discussion, one hour. Required: courses 10, 100A, 100B, 120A, or 120B. Designed for Psychology and Cognitive Science majors. What mental mechanisms allow humans to transfer thoughts across minds through language? Through discussions and experiments, evaluation of behavioral, modeling, and neuroscientific data elucidating component processes of language system and its place within architecture of mind. P/NP or letter grading.

124F. Thinking. (4) Lecture, three hours. Required: course 120A or 120B. Analysis of experimental studies of human categorization, reasoning, decision making, problem solving, creativity, and related topics. P/NP or letter grading.

124C. Cognition and Successful Aging. (4) Lecture, three hours. Required: course 120A or 120B. Discussion of cognitive, social, and emotional changes that
124J. 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 and skills in 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 to specific domains, with special focus on teaching and learning in mathematics. P/NP or letter grading.


126. Clinical Psychology Laboratory. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, and 127A or 127B or 127C. Designed for department majors. neutron and isotope in- determination of biological, behavioral, social, cognitive, and cultural factors, diagnosis and treatment approaches. Discussion of Stigma and practices that support inclusiveness. P/NP or letter grading.

127A. Abnormal Psychology. (4) Lecture, three hours; discussion, one hour. Requisite: course 10, Not open for open to students with credit for course 127A or 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/NP or letter grading.

127B. Abnormal Psychology: Biological Bases. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for open to students with credit for course 127A or 127B or 127C. Study of biological processes involved in etiology, presentation, and course of psychotic disorders, and biological targets or mechanisms of treatment. Emphasis on biological science and behavioral genetics as scientific modali- ties to understand mood disorders, substance use disorders, psychosis, and others. P/NP or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for open to students with credit for course 127A or 127B or 127C. Study of abnormal child 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/NP or letter grading.

129. Culture and Mental Health. (4) Lecture, two hours; discussion, one hour. Requisites: courses 10, 100A. Introduction to study of culture and human behavior in general, and culture and mental health in particular. Emphasis of cultural groups that compris- e major U.S. ethnic groups (i.e., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/NP or letter grading.


129F. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Requisite: course 127A or 127B or 127C. Survey of child and adolescent psychology and psychopathology, and therapy from a developmental perspective. Coverage includes such conditions as anxiety disorders, depres- sion, conduct and attention problems, eating disor- ders, and with information on treatment options, causes, common treatments and their effects. P/NP or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B, and 100C. Designed for juniors/seniors. Elaboration of develop- mental aspects of physical, mental, social, and emotional growth from birth to adolescence. P/NP or letter grading.

131. Research in Developmental Psychology. (4) Discussion, one hour; laboratory, three hours. Requi- sites: courses 10, 100A, 100B, and 130 or one course from 133A through 133I. Designed for Psychology and Cognitive Science majors. Forms of scientific writing, ethics of research, especially with minors; special ad- vantages and problems of asking developmental re- search questions; relevant methodologies for experi- mental, descriptive, and quasi-experimental designs and data presentation options. P/NP or letter grading.


132B. Mental Health in Schools: Policy and Prac- tice. (4) Seminar, three hours. Requisites: limited to juniors/seniors. Policies, models, and mechanisms for mental health in schools. Psychopathology placed into broader perspective of normal development and psychosocial problems to explore range of theoretical, practical, and ethical issues. P/NP or letter grading.

133A. Adolescent Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Examination of cognitive, social, physical, and physiological develop- ment of the adolescent. P/NP or letter grading.

133B. Cognitive Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Major theories, ap- proaches, and issues in study of cognitive develop- ment. Readings include original research on important topics such as the development of perception, language, thinking, and problem solving, and acquisition of con- cepts and domain-specific language. P/NP or letter grading.

133C. Language Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to study of language development. Topics include first and second language acquisition (sounds, meanings, grammatical structures), learning mechanisms, commu- nication skills, and relation between language and thought in children. P/NP or letter grading.

133D. Social and Personality Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Theory and research on social and personality devel- opment during childhood. Topics include parent/child attachment, temperament, self-control, aggression, sex-typing, self-concept, moral reasoning and behav- ior, social status and social skills, and peer group relations. P/NP or letter grading.

133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and development of human perceptual abili- ties, origins of knowledge about functionally important aspects of the environment, ecological and computa- tional issues in perception, research and theory about initial perceptual capacities, and some sensory foun- dations. P/NP or letter grading.

133F. Psychology and Education. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and per- ception to educational problems. Topics include general instructional issues, psychology of reading and writing, exceptional education, and the educational disadvantage. P/NP or letter grading.

133G. Culture and Human Development. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 100A. Role of culture in human development through psychology, anthropology, and autobiog- raphy. Students relate material from lectures and read- ings, through empirical research projects, to diverse cultural backgrounds, including those of the Native American, African American, Asian American, Latino, and in the broader community. P/NP or letter grading.

133I. Applied Developmental Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A. Appli- cation of developmental psychology to issues per- taining 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 policy issues, child-rearing practices. P/NP or letter grading.

134A. Applied Developmental Psychology: Infant/ Toddler Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psychology min- ors. Coverage of children from birth to three years old. Topics include physical, cognitive, social, and emo- tional development of children, developmentally approp- riate 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 Psy- chology minors. Coverage of children from three to eight years old. Topics include physical, cognitive, social, and emotional development of children, developmentally appro- priate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.


134F. Infant Care and Development. (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 de- velopment from conception through second year of life, including cross-cultural application of this knowl- edge to various populations. P/NP 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. Ex- amination of methods, materials, and philosophies that enhance development of children in context of childcare settings. Topics include issues of multiculturalism, antibias curriculum, and special needs adap- tations. P/NP or letter grading.

134H. Child, Family, and Community. (4) Lecture, three hours. Requisites: courses 10, one course from 130 or 133B through 133I, one statistics course. Exam- ination of role of early childhood educators within 134I. Child, Family, and Community. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and per- ception to educational problems. Topics include gen- eral instructional issues, psychology of reading and writing, exceptional education, and the educational disadvantage. P/NP or letter grading.
context of diverse racial, ethnic, economic, and cultural backgrounds and impact of these dynamics on children’s development. P/NP or letter grading.

134J. Dynamic Perspectives on Parenting. (4) Lecture, three hours. Overview of key tasks of parenting and changes in parent-child relationship from birth through adolescence. Overview of the process 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, mutually respectful parent-child relationships; and provide positive guidance to promote self-regulation, competence, and socially responsible behavior. P/NP or letter grading.

134K. Effects of Early Adversity and Trauma. (4) Lecture, three hours. Examination of extensive 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. Review of research on common childhood stressors, individual and contextual factors that put children at risk for development, prevention strategies, and protective factors that promote successful coping and healthy adjustment. P/NP or letter grading.

135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for Psychology majors. Introduction to social psychology, the individual and his social environment. Social influences on motivation, perception, and behavior. Development and change of attitudes and opinions. Psychological analysis of small groups, social stratification, and mass phenomena. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. 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.

136B. Nonexperimental Methods in Social Psychology. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonexperimental methods to test social psychological hypothesis, including experiments, observation, content analysis, and/or questionnaires. P/NP or letter grading.

136C. Experimental Research in Racial and Ethnic Politics. (4) (Same as Sociology M183B.) Lecture, three hours; laboratory, one hour. Research practicum consisting of designing, analyzing, and reporting effective research results. Topics include studying people’s political attitudes, beliefs, and behaviors through carefully-designed experiments. P/NP or letter grading.

137A. Neuroscience of Social Perception. (4) Lecture, three hours. Requisites: courses 10, 100A. 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 world and on neural mechanisms underlying these phenomena. P/NP or letter grading.

137B. 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 focus on both production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinesics). Focus on body language. Readings from variety of related fields. P/NP or letter grading.

137C. Intimate Relationships. (4) Lecture, three hours. Requisites: courses 10, 100A. Limited to juniors/seniors. Intimate social systems; abuse and assault; study, and treat 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.


137E. 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 job choice, job findings, leadership, performance evaluation, discrimination, and evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

137F. Introduction to Cultural Psychology. (4) Lecture, three hours. Exploration of a diverse range of issues in psychology, self, emotion, motivation, development, and relationships. Broad survey of how ideas and practices associated with various regions of the world, such as 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 coverage dovetails with everyday life and real-world work, uses 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 psychological perspective. Particular attention given to reviewing 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 influencing, and resisting persuasion and influence attempts. Application of findings from social influence literature to understanding influence in various social contexts. P/NP or letter grading.

137J. Self and Identity. (4) Seminar, three hours. Requisite: course 10. Designed for juniors/seniors. Examination of theory and research that addresses self from social psychological perspective. Topics focus on self-knowledge, how self is represented in memory, illusions about self, self-esteem, implicit (subconscious) self, self-regulation, social comparison, self-relevant emotions, and influence of culture on self. P/NP or letter grading.

137K. Psychology of Emotion. (4) Lecture, three hours. Designed for junior/senior psychology majors. Broad overview of science of human emotion. Covers topics such as history of current dominant models of emotion, purpose of facial expressions, experience of emotions in our closest social relationships, how regulation of emotions can make us sick, and what it means to be happy. Exploration of range of perspectives in psychology, ranging from social, cultural, developmental, health, and clinical psychology. Consideration also of cognitive and behavioral neuroscience. P/NP or letter grading.

137M. Social Cognition. (4) (Same as Communication M123.) Lecture, three hours. Survey of research from field of social cognition with emphasis on understanding cognitive processes involved in interpersonal and intergroup communication. Topics include attention, interpretation, evaluation, judgment, attribution, and memory processes. Consideration of both controlled and automatic processes. Discussion of roles of motives, goals, and affective variables. P/NP or letter grading.

M138. Political Psychology: 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, racial conflict, and psychological analysis of public opinion on these issues.

M139A. Perspectives on Autism and Neurodiversity. (4) (Same as Disability Studies M139.) Seminar, three and one half hours. Genealogy of autism as a diagnostic category and cultural phenomenon from its historical origins in late 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 way people on spectrum define, explain, and re-present their own experiences of autism and discussion of how ramifications of multiple framings are in conversations about autism interests 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. Perspectives on major features of human aging—biological, psychological, social, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.


147A. Psychology of Lesbian Experience. (4) (Same as Gender Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: course 10 or Gender Studies 10 or Lesbian, Gay, Bisexual, 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 sociohistorical context. P/NP or letter grading.

149. Language Development and Socialization. (4) (Same as Anthropology M152P) Lecture, three hours; discussion, one hour (when scheduled). Exploration of processes through which children learn structures and practices of language and become competent participants in linguistic and social worlds around them. Examination of language and socialization over childhood, across communities of practice, and among diverse ethno-racial linguistic groups. Bridges work from anthropological, psychological, linguistic, and cognitive science. Topics include cross-cultural perspectives on language use 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.
150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and research, psychological perspective on these processes and variables. Psychological perspectives 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. Research methods used in health psychology, including experimental, quasi-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. Designed for junior/senior Psychology and Psychobiology majors. Examination of bidirectional interactions between mind and body and how these interactions influence physical health. Topics include impact of stress, emotions, personality, and social world on biological systems and health. Discussion of mind-body interventions designed to reduce stress and improve health, including scientific research on yoga and meditation. P/NP or letter grading.

161. Behavior and Brain Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Limited to juniors/seniors. Focuses on 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.


M163. Death, Suicide, and Trauma. (4) Same as Sociology M195 and Psychology M168A. Three hours; discussion, one hour. Sociological analysis of incidence of violent death. Suicide is leading cause of death in U.S. and third leading cause for young people aged 15 to 24. 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 but are differentiated 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 social theories to make sense of violent death, paying particular attention to forensic and medicolegal system to determine suicide and solve homicides. Review of historic and contemporary studies toward research and conceptualizations of suicide and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.


M165. Psychology of Gender. (4) Same as Gender Studies M166. Three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and personality differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

166. Neurobiology of Bias and Discrimination. (4) Same as Neuroscience M187 and Psychological Science M106). Lecture, four hours. Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis from genetics to neural circuits to behavior. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

167. Digital Media and Human Development. (4) Lecture, three hours. Designed for junior/senior majors. Examination of how digital 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, and other media used by children up to age 12 (and 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 factors are organizational today, and what are best ways to bring about change in organizations. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) Same as African American Studies M172 and Gender Studies M172. Lecture, three hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact interpersonal relationships of Afro-American women as members of large society and as members of their biological and ethnic group. P/NP or letter grading.

M174. Health Disparities. (4) Same as Life Sciences M174.) Lecture, three hours. Examination of health disparities and ways in which societal responses to racial, ethnic, and gender differences in health disparities are impacted by factors that create differential access to health-care resulting in poor health outcomes in racial/ethnic minorities. Basic tenet: 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 health disparities into disciplinary, social, biological, political, psychological, genetic, and clinical health interests. P/NP or letter grading.

175. Community Psychology. (4) Designed for junior/senior majors. Focuses on theories of psychological principles to understanding and solution of community problems. Topics include community development, community mental health problems, drugs, racism, and sexism. P/NP or letter grading.

M176SL. Addressing Social Determinants in Racial/Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4) Same as Community Engagement and Social Change M176SL.) Seminar, two hours; fieldwork, 10 hours. Examination of how addressing social determinants in racial/ethnic minority communities can reduce or eliminate physical and mental health disparities. Currently in racial and ethnic minority communities, the status of individuals can be function of built environment, exposure to pollutants and toxins, scarcity of supermarkets or stores with fresh produce and nutritional food, noise levels, and variety of other stressors and unhealthy conditions. Health interventions are often focused on individual-level change or increases in access to healthcare with little in way of changing environment. Designed to introduce opportunities to understand how to address social determinants related to negative health outcomes in racial/ethnic minority neighborhoods and communities and to experience how to use sociocultural literacy 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 psychological counseling; comparison of alternative models of counseling approaches. 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. Principles of Research in Relationshiop Science. (1–1–1) Seminar, one hour. Introductory course concerning research issues in the social sciences (e.g., leading theories, common measures and research designs, key statistics). Students learn important professional skills in conducting research and in applying to graduate school. P/NP grading.

184A-184B. Psychology Research Opportunity Program Seminars. (2–2) Seminar, 90 minutes. Designed to bring together Psychology Research Opportunity Program (ROPs) students undergoing 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. May not be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract. 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. Designed for junior/senior departmental majors. Models of cognition within frame-work of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, learning, reasoning, and problem solving). Types of models include neural networks and symbolic computations. Hours and discussions intertwined with computer simulations written in MATLAB. P/NP or letter grading.


186C. Cognitive Science Laboratory: Psychophysiological Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive processing and decision models on which procedures are based, with particular emphasis on signal detection theory and its applications. Letter grading.

188D. Laboratory in Functional Neuroimaging. (4) Laboratory, four hours. Enforced requisites: 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/seniors. Departmental supervised experimental or temporary seminar. Limited to selected topics in psychology, such as those taught by visiting faculty members. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Departmentally sponsored experimental or temporary courses on topics of psychological interest, such as...
those taught by visiting faculty members. Consult Schedules of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 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 requisite: course 188SA. Enforced corequisite: Honors Colloquium 101E. Limited to 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. May not be repeated. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designated as adjunct to undergraduate seminar. 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. Designated 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 four units. Individual contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Psychology. (1) Seminar, one hour. Designed to bring together students under- taking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Psychology. (1) Seminar, one hour. Corequisite: course 198B. Limited to undergraduate students. Research seminar on selected topics in psychology. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP grading.

191AH-191BH-191CH. Departmental Honors Research Seminars. (2–2–2) Seminar, two hours. Enforced corequisite: course 198B. Course 191AH is required to be 191BH, which is requisite to 191CH. Limited to psychology honors program students. Opportunity for development and analysis of creative ideas through individual research projects with faculty sponsor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Advising Office, courses 191AH and 191BH may be applied toward elective course requirement for any Psychology Department major. Letter grading.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in courses related to psychology. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

193. Journal Club Seminars: Psychology. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature of particular field or attendance at and write-ups of speakers series. May be repeated for credit. P/NP grading.

194A. Internship Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 195A. Study of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194B. Research Group Seminars: Psychology. (1) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to juniors/seniors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194C. Research Group Seminars: Cognitive Science. (1) Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department 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 198D. Limited to undergraduate students who are part of research group that meets with graduate students. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for 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 setting in community agency or business. Students meet on regular basis with sponsor and provide periodic reports on their experience. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

195B. Corporate Internships in Cognitive Science. (4) Tutorial, eight hours. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through internship experience in supervised setting. Students meet on regular basis with supervisor and provide periodic reports of their experience. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract with supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196A. Research Apprenticeship in Psychology. (3 to 4) Tutorial, eight hours. Corequisite: course 194B. Limited to juniors/seniors. Practical applications of psychology through research under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May 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.

196B. Research Apprenticeship in Cognitive Science. (3 to 4) Tutorial, eight hours. Corequisite: course 194C. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through research under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

198. Honors Research in Psychology. (2) Tutorial, two hours. Enforced corequisite: courses 191AH or 191BH or 191CH. Limited to juniors/seniors and psychology honors program students. Development and completion of honors thesis or comprehensive research project under guidance of faculty member. May not be repeated. Individual contract 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. Culininating paper required. Only one 4-unit 199AH or 199BH or 199CH may be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

199B. Senior Project in Psychology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating project required. Only one 4-unit 199AH or 199BH or 199CH may be taken per term. May be taken only once for letter grade. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

Graduate Courses

200A. Pavlovian Processes. (4) Lecture, three hours. Basic principles and characteristics of learning and behavior, including Pavlovian conditioning, instrumental learning, and species-specific behavior. S/U or letter grading.

200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning and application of learning principles to goal-directed action, motivational principles, and goal selection in nonhuman animals. S/U or letter grading.


201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Required of learning and behavior students a minimum of four times (entire first year and winter of second year). Presentation of published research on 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.
203. Grant Writing for Neuroscientists. (4) Seminar, three hours. Focus on writing and preparing National Research Service Award (NRSA) grants. Letter 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, and reproduction. Same approach applied to cognitive motivation, reinforcement, and drug addiction. Historical surveys of behavioral analyses of motivation and goal-directed behavior. 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, three hours. Designed for graduate students. Examination of neural basis of perceptual learning. Overview of literature on cortical plasticity, and how it relates to different forms of perceptual learning, such as habituation, associative learning, and memory. Review of mechanisms of cortical plasticity, including basic features of long-term synaptic plasticity and computational models of cortical processing. Letter grading.

205E. Neural Basis of Reward and Value. (2) Five-week course. Lecture, three hours. Designed for graduate students. Overview of neural systems underlying reward and value. Emphasis on mechanisms of reinforcement learning and cost-benefit or value-based decision making. Readings drawn from primary literature in animal research. Letter grading.

205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of engrams. Cell biology of plasticity, including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to make learning possible. Letter grading.


205M. Neuropsychology of Perception. (2) Lecture, three hours (five weeks). Designed for graduate students. Examination of neural substrates of high-level visual processing. Topics include agnosias and characteristics of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.

205N. Dopamine Prediction Error: Case Study of Reinforcement Learning Theory. (2) Seminar, three hours. Overview of dopamine prediction error—signal exhibited when there is difference between expected outcome and reality—and theories that have been used to describe it. Discussions 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 optogenetics. Letter grading.

205O. Neurobiology of Defensive Behaviors. (2) Lecture, three hours (five weeks). Designed for graduate students. Overview of modern literature in rodent dissecting anxiety, fear, and panic circuits. Letter grading.

205B. 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 electroencephalography (EEG) and cardiovascular phenomena. S/U or letter grading.

207. Seminar in Behavioral Neuroscience. (4) Seminar, three hours. Requisite: Neuroscience M203 or consent of instructor. Seminar on topics in Behavioral Neuroscience. May be repeated for credit. S/U or letter grading.

208. Biology of Learning and Memory. (4) (Same as Neuroscience M200G and Neuroscience M220) Lecture, four hours. Circuit, system, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

212. Evaluation of Research Literature in Physiological Psychology. (1) Discussion, 90 minutes. Papers of current interest presented by members of seminar. Students are expected to review and critique the literature. Letter grading.

215A. Health Psychology. (4) Lecture, three hours. Preparation: undergraduate degree or training in psychology. Psychological and social factors involved in etiology of illness, treatment and course of illness, long-term care and adjustment of chronically ill or disabled, and practice of institutional healthcare and self-care. Letter grading.

215B. Human Physiology in Social and Behavioral Science. (4) Lecture, three hours. Limited to graduate students. Designed to provide students with understanding of basic anatomy and activities of biological systems that relate psychological factors to health, and interconnections between these systems. Letter grading.

216A. Psychology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of adjustment to chronic illness: theoretical framework for understanding determinants of adjustment to chronic illness and current research on those determinants. Special attention to gender and gender role and in populations with chronic illness, evidence-based psychosocial interventions for individuals with chronic illness, and terminal illness and end-of-life care. Readings and discussion across several major chronic diseases (e.g., cardiovascular diseases, cancer, AIDS, rheumatic conditions, diabetes). Letter grading.

216B. Psychoneuroimmunology. (4) Seminar, three hours. Limited to graduate students. Introduction to field of psychoneuroimmunology to help students develop conceptual and methodological skills necessary for interpreting research in this area. Letter grading.

216C. Psychology of Women’s Health. (4) Seminar, three hours. Limited hours. Focus on women’s health. Socioenvironmental context of women’s health, stress and depression in women, psychological aspects of gynecological health, major causes of morbidity and mortality for women, and women’s health-related behaviors. Letter grading.

216D. Psychology of Aging and Health. (4) Seminar, three hours. Limited to graduate students. Theories and methods in study of aging and adult development, age-related changes in biological systems, and psychosocial aspects of aging. Topics include physical and cognitive functioning in late adulthood, mental and physical well-being in elderly adulthood, and socioemotional functioning changes with age. Letter grading.

216E. Families, Emotions, and Health. (4) Seminar, three hours. Limited to graduate students. Discussion of theory and research on biological, emotional, social, and behavioral processes that link childhood family social environments to long-term mental and physical health. Letter grading.

216F. Community Psychology. (4) Seminar, three hours. Limited to graduate students. Social problems focus, with discussion of both conceptual and methodological issues that arise when designing and evaluating community interventions. Issues related to conceptualization of social problems as opposed to problems of individuals, and presentation of multidimensional explanatory models and interventions for several social problems. Social attention to ethnic and socio-economic health disparities and to methodological issues faced in conducting research on these issues. Letter grading.

216G. Biology of Chronic Disease. (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. Focus of research and theory in health behavior and health behavior change. Identification of contribution of health behaviors to overall health, construction of study designs and methods that effectively modify 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 epigenetics, 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 hospitals present their research, programs, and/or clinical work as part of training in health psychology. May be repeated for credit. S/U grading.

220A. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive overview of concepts, theories, and major problems in social psychology.


222A. Interpersonal Relations. (4) Discussion, three hours. Requisite: course 220A. Critical review of 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 in intergroup relations research. Approaches not simply restricted to work within psychology but across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.

M222E. Foundations of Organizational Behavior. (4) (Same as Management-Phd M243.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classic and emerging theories and research in field of organizational behavior, with focus on micro-level topics related to individual and interpersonal processes within organizations. Exploration of how indi-
vidual behaviors, cognitions, and perceptions are af
222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for suc
cess in graduate school and academia more broadly; includes development of personal professional
script reviewing, grant writing, teaching and mento
ring, academic job market, job negotiating, and giving job talks. Involves combination of guest speakers, lec
tures, discussions, readings, written exercises, and practical experience. S/U or letter grading.
M222G. Social Vision. (4) Formerly numbered 222G.) (Same as Communication M234.) 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.
222I. Intervention Science. (4) Seminar, three hours. Exploration of use of science as basis for intervention. Exploration of psychology of social problems, and poten
tial for scientific, including to inform meaningful and lasting solutions to social problems. S/U or letter grading.
225. Seminar: Critical Problems in Social Psychology. (4) Seminar, three hours. Consideration of major topics and concepts, key theo
dies, latest methods, and research findings in social and con
temporary psychology. S/U or letter grading.
M228A. Proseminar: Political Psychology. (4) (Same as History M236A and Political Science M261A.) Seminar, four hours. Introduction to political psychology: psychobiography, personality and poli
tics, mass attitudes, group conflict, political communi
cation, and elite decision making.
M228B. Seminar: Political Psychology. (4) (Same as Political Science M261A.) Discussion, three hours. Designed for students. May be repeated for credit with consent of instructor. S/U or letter grading.
M228C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E.) Discussion, three hours. Consideration of major topics and concepts, key theo
dies, latest methods, and research findings. S/U or letter grading.
241. Current Developments in Developmental Psychology. (1) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or lan
guage development. Designed for graduate students. Consideration of major topics and concepts, key theo
dies, latest methods, and research findings in develop
ment of language and cognition. S/U or letter grading.
M242A. Seminar: Developmental Psychology. (4) Lecture, three hours. Preparation: one undergraduate course in social development or related topic. Designed for graduate students. Con
sideration of major topics and concepts, key theories, latest methods, and research findings in social and con
temporary developmental psychology. S/U or letter grading.
M242B. Methods in Social and Affective Neuroscience. (4) Lecture, three hours. How emotional experiences and behaviors may be repeated for credit. S/U or letter grading.
M245. Personality Development and Education. (4) (Same as Education M245.) Lecture, four hours. Emphasis on approaches to a broad view of research and theory of critical content areas in personality development that bear on school perfor
mance: achievement motivation, self-concept, ag
gression, sex differences, empathy, and other social behaviors; review of research on social behavior in personality theory and development. S/U or letter grading.
247. Culture, Brain, and Development. (4) (Same as Sociology M247.) Seminar, three hours. General in
truction to interrelations of culture, brain, and develop
ment, including both social and cognitive develop
ment. Special attention to effects of social change on culture and human development. S/U or letter grading.
M248. Brain and Behavioral Development during Adolescence. (4) Formerly numbered 248.) (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, stress, relationships, and population diversity. Discussions of assigned readings and presentations by guest faculty and scientists. S/U or letter grading.
249. Current Issues in Quantitative Psychology. (1) Seminar, 90 minutes. Designed for graduate students and minors. Research presentations and discussions of recent and current literature in quantitative psychology. May be repeated for credit. S/U grading.
250A. Advanced Psychological Statistics. (4) Re
view of fundamental concepts. Basic statistical tech
niques will be applied to data analysis of experimen
tal and observational research.
M250B. Advanced Psychological Statistics. (4) Ad
vanced experimental design and planning of investi
gations.
M250C. Advanced Psychological Statistics. (4) Lec
ture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of traditional topics in correlation and regression anal
yses, including model comparison strategies, evalua
tion of model assumptions, testing mediation and moderation hypotheses, working with categorical vari
gables, general linear model, and logistic regression. Letter grading.
M251A-251B-251C. Research Methods, (4–4–4) Tuto
rial, to be arranged. Designed for graduate psychology students. Students design and conduct original re
search projects under supervision of instructor in class. It is anticipated that students will comple
the project in two terms (normally three terms allowed). S/U (251A, 251B) and S/U or letter (251C) grading.
M253. Factor Analysis. (4) (Same as Education M231B.) Lecture, four hours. Requisites: Education 211B, 231A. Exploratory factor analysis, rotations, con
firmatory factor analysis, multiple-group analysis. S/U or letter grading.
254B. Mediation, Moderation, and Conditional Pro
cess Analysis. (4) Lecture, three hours. Requisite: course 250C. Designed for students with previous ex
perience 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 (con
ditional process analysis). S/U or letter grading.
254C. Bayesian Statistics. (4) Lecture, three hours. Requisite: course 250A. Introduction to Bayesian in
dependence, effective approaches to Bayesian modeling and computation, and Bayesian methods that can be used by applied researchers to solve real-life prob
255A. Quantitative Aspects of Assessment. (4) Lecture, four hours. Requisites: courses 250A, 250B. In
truction to issues concerning empirical measure
ments: abstract constructs using both classical and modern empirical techniques. Hands-on approach al
ows students to develop practical experience. In ad
dition to discussion of issues concerning reliability and validity, topics include exposure to analytic ap
proaches, including item response theory, multiple re
gression, principal components analysis, exploratory factor analysis, confirmatory factor analysis, path analysis, and structural equation modeling. S/U or letter grading.
259B. Introduction to Multilevel Modeling. (4) Lec
ture, four hours. Requisite: course 250C. Basics of random coefficient models for analysis of data from (1) individuals nested within groups and (2) repeated ob
servations from individuals (latent growth models). Selected advanced topics, including three-level models, cross-classification, dyadic data, categorical outcomes, power, and assumption violation. S/U or letter grading.
ticular emphasis on cognitive, social/personality, developmental, and biological aspects of discipline. Broad treatment of how various emphases within development, and biological aspects of discipline.

291. Trauma and Health. (4) Seminar, three hours. Trauma is considered vast majority of individuals experience traumatic event during their lifetime. Although many individuals are resilient after these experiences with respect to their emotional health, sequelae of many individuals are resilient after these experiences. Treatment of how various emphases within developmental, and biological aspects of discipline.

M294. Seminar: Neural and Behavioral Endocrinology. (2) (Same as Neurobiology M255 and Physiology M258.) Seminar, one hour; discussion, one hour. Topics include hormonal biochemistry and pharmacology. Hypothalamic/hypophysial interactions, both hormonal and neural. Structure and function of hypothalamus. Hormonal control of reproductive and neural behavior. Seminar, one hour; discussion, one hour. Topics include hormonal biochemistry and pharmacology. Hypothalamic/hypophysial interactions, both hormonal and neural. Structure and function of hypothalamus. Hormonal control of reproductive and neural behavior.

295. Psychology of Diversity. (4) Seminar, three hours. Introduction to theory and research on 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.

M297. Methods in Developmental Cognitive Neurosciences. (Formerly numbered 297.) (Same as Neuroscience 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.

C296B. Research Group Seminars: Practicum. (1) Seminar, one hour. Designed for graduate students who are part of research group that meets with undergraduate courses (100-199) within Psychology Department, and preparation for and following-up on consultation meetings. S/U grading.

401. Fieldwork in Clinical Psychology. (1 to 12) 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 of students meets each week for quarter in self-led study group to pursue specific topic of their choice that is not covered in other department courses. S/U grading.

410A-410B-410C. Clinical Teaching and Supervision. (4-4-4) Clinic, four hours. Preparation: completion of Ph.D comprehensive examinations, advancement to candidacy or preparation for dissertation research actively under way. Study and practice of knowledge, concepts, and theories on teaching and supervision of applied clinical psychology. Letter grading.

410D-410E-410F. Clinical Assessment Supervision. (4-4-4) Clinic, two hours; other, one hour. Designed for third-year graduate clinical psychology students. Study and practice of knowledge, concepts, and theories on teaching and supervision of psychological assessment. Letter grading.

421. Research in Social Psychology. (2) Discussion, two hours; reading and group work, four to six hours. Forum for faculty and graduate students pursuing research on a common topic to share research ideas, make research presentations, and obtain feedback on study designs, procedures, and results to foster collaborative investigations in common research areas. S/U grading.


495A. Teaching Assistant Training Seminar: Preparation of Psychological Materials I. (1) Seminar, 90 minutes. Supervised practicum in undergraduate teaching. Focus on implementation of evidence-based teaching practices. Topics include facilitating active learning, presenting material, providing constructive feedback, and teaching diverse students. Students serve as teaching assistants in course 10. S/U grading.

495B. Teaching Assistant Training Seminar: Preparation of Psychological Materials II. (1) Seminar, one hour. Requisite: course 495A. Supervised practicum in undergraduate teaching. Advanced training in use of evidence-based teaching practices. Topics include designing course materials, setting pedagogical goals, and developing teaching statements. Students serve as teaching assistants in various courses. S/U grading.

596. Directed Individual Research and Study in Psychology. (2 to 12) Tutorial, to be arranged. One 496 course is required during second year of graduate study, and one 596 or 599 course is required during each succeeding year of graduate study. (Terminal MA candidates are exempt from this requirement.) S/U grading.

597. Individual Studies. (2 to 4) Tutorial, to be arranged. Designed primarily as preparation for Ph.D qualifying examinations. May be required by some area committees as requisite for taking examinations. S/U grading.

599. Research for Ph.D Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each year following completion of qualifying examinations. S/U grading.

PUBLIC AFFAIRS

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
Mark S. Kaplan, PhD (Social Welfare)
Adam S. Millard-Ball, PhD (Urban Planning)
Meredith Phillips, PhD (Public Policy, Sociology)
Michael A. Stoll, PhD (Public Policy, Urban Planning)
V. Kelly Turner, PhD (Geography, Urban Planning)

Overview
The Public Affairs minor teaches undergraduates 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.

**Public Affairs Schoolwide Programs**

*Meyer and Renee Luskin School of Public Affairs*

3343 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

Public Affairs Major
310-794-4080
E-mail contact

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Michael A. Stoll, PhD (Public Policy, Urban Planning)
V. Kelly Turner, PhD (Geography, Urban Planning)

**Overview**

The Public Affairs major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. It combines interdisciplinary training in the social sciences with practical experience addressing public problems. Students will learn theoretical, empirical, and critical foundations of applied social science, qualitative and quantitative research methods, and the history and practice of community engagement.

Public Affairs students traverse the boundary between the classroom and the world through instruction in public engagement and experiential learning that develop students’ capacity to work collaboratively with communities, government agencies, nonprofit organizations, and businesses.

The major serves as a pathway for students pursuing careers serving the public interest in civil society, business, government, or through advanced graduate training in academic or professional programs.

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**Public Affairs BA**

**Capstone Major**

The Public Affairs major is a designated capstone major. Students pursuing the major are required to complete a three-quarter experiential learning opportunity. The experiential learning capstone consists of three parts: an internship, seminar, and capstone project.

Internships can range from internships in community-based organizations, social enterprise businesses, or regional governments to UCLA Global Internship Program, UCLA Quarter in Washington, or UC Center Sacramento (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

**Entry to the Major**

**Admission**

Students must apply to declare the Public Affairs major. Admission into the major is based on student academic performance and an application process. Consult with Luskin School of Public Affairs undergraduate advisers for any additional admission requirements.

**Pre-major**

Students entering UCLA directly from high school can select the Public Affairs pre-major on the UCLA admission application, or complete a petition to enter the pre-major once in attendance at UCLA. Transfer students are automatically admitted to the major if they select Public Affairs on the UCLA admission application. See the Transfer Students section for more details.

The Public Affairs major includes eight lower-division courses and ten upper-division courses. Students identified as Public Affairs pre-majors have the opportunity to formally apply to declare the Public Affairs major after completing 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 requisites for upper-division coursework.

Students may only apply to the Public Affairs major during winter quarter of their first or second year, once they have satisfied the following criteria: (1) Must be in good standing at the time of application. This means students cannot be on probation or subject to dismissal status when they apply, (2) Have completed, with a C or better, at least 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 pre-major 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.

**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 coursework is subject to departmental 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.

Requirements

Preparation for the Major

Required: Public Affairs 10, 20, 30, 40, 50, 60, 70, 80.

The Major

Required: (1) Two theory courses selected from Public Affairs M109, 110, 111, 112, 113, 114; (2) both research methods courses Public Affairs 115, 116; (3) three-term capstone sequence Public Affairs 187AX, 187B, 187C; (4) three additional upper-division public affairs courses.

Policies

Preparation for the Major

Each course must be taken for a letter grade. Preparation for the major courses must be completed with a C grade or better.

The Major

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

Public Affairs

Lower-Division Courses

10. Social Problems and Social Change. (5) 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 social problems, and how individuals, social advocates, and communities can lead or impede social change. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Power, Politics, and Policy Change. (5) Lecture, three hours; discussion, one hour. Introduction to key institutions of government, politics, and policy in U.S., covering their history, contemporary forms, and internal dynamics. Includes various scales and branches of government as well as institutions that exercise power and influence in public decision making and social action, such as corporations, unions, media, social movements, and civil society. Letter grading.

30. Comparative Analysis of Wealth, Policy, and Power. (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 polities have tried (and succeeded or failed) at generating effective responses. Applications include climate change, vaccination movement, protest and repression, war and formation of states, capitalism, and human and drug trafficking. Letter grading.

40. Microeconomics for Public Affairs. (5) Lecture, three hours; discussion, one hour. Introduction to principles of microeconomics with focus on social and policy problems. Study of decisions by firms and individuals, and implications for allocation of resources.

Application of economic models to public issues such as social safety net, minimum wage, education, inequality, and poverty. Letter grading.

50. Foundations and Debates in Public Thought. (5) Lecture, three hours; discussion, one hour. Introduction of core concepts of democracy and equality and challenges posed by race, class, and gender inequality. Review of standards by which political systems can be judged to be democratic and identification of obstacles to their mutual implementation focuses on inequality, its historical causes and modern consequences. Letter grading.

60. Using Data to Learn about Society: Introduction to Empirical Research and Statistics. (5) Lecture, three hours; discussion, one hour. 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 margins 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. Evaluation of types of evidence, arguments, and persuasion on social problems and public issues. Examination of other approaches to 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 contexts interact with biological, cognitive, and psychosocial factors to affect individuals during key developmental periods (such as early childhood, childhood, adolescence, early adulthood, and late adulthood). Students may include historical changes in families, schools, neighborhoods, and workplace; economic conditions of families, schools, and neighborhoods; enduring effects of childhood on adult well-being; and impact of described characteristics as gender, race, and nationality on individuals’ environments, pathways, and outcomes. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Students attend class, read 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.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

95. Introduction to Community or Corporate Internships in Public Affairs. (2 or 4) Tutorial, two hours; fieldwork, eight hours. Limited to freshmen/sophomores. Entry-level internship in supervised setting in corporate, governmental, or nonprofit/community organization setting related to public affairs. Students 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.

100. Urban Revolution: Space and Society in Global Context. (4) Lecture, three hours; discussion, one hour. Examination of potentialities and challenges of 21st-century urban revolution in global context. Introduction of theoretical frameworks and conceptual methods used by urban studies and planning to study cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban challenges such as immigration, segregation, gentrification, and sububanization. Students learn about institutions and policies governing transportation and housing, and forms of community organizing and civil society that seek to reshape 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 policy analysis. Broad focus on evaluating rational for government intervention in economy, in particular to address market failures and issues of economic inequality. Major emphasis on market failures related to rentability, and economic inequality arising from markets for human capital, health, housing, and labor. Students are expected to have working knowledge of basic statistical and economic concepts. Letter grading.

112. Social Movements. (4) Lecture, three hours; discussion, one hour. Introduction to theories, real-life examples, and applied skills for understanding and contributing to social movements. Examination of how and why social movements emerge; how why people join, lead, stay, or drop out of movements; and strategies and tactics by which social movements enact change. Draws upon student’s own social movements inside and outside of U.S. Letter grading.

113. Policy Analysis: Approaches to Addressing Social Problems. (4) Lecture, three hours; discussion, one hour. Introduction to applied policy analysis designed to train students in logic of public policy analysis, introduce them to general skills required to do policy analysis, and to prepare them in persuasive presentation of their work. Development of skills fundamental to effective policy analysis and argumentation. Letter grading.

114. People, Organizations, and Systems. (4) Lecture, three hours. Theoretical approaches to human service organizations to explore social ecology of human organizations as 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 back-up. Letter grading.

115. Using Quantitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, five hours; lab, one hour. Course designed primarily for upper-division (and sometimes graduate) students. Upper-division or equivalent introductory statistics course. Introduction to multivariate regression, propensity score matching, and regression discontinuity. Students learn about institutions and policies governing transportation and housing, and forms of community organizing and civil society that seek to reshape urban inequalities. Introduction to key theories of space and utopian visions of urbanism. 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 of urban form. 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 by urban studies and planning to study cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban challenges such as immigration, segregation, gentrification, and sububanization. Students learn about institutions and policies governing transportation and housing, and forms of community organizing and civil society that seek to reshape 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 policy analysis. Broad focus on evaluating rational for government intervention in economy, in particular to address market failures and issues of economic inequality. Major emphasis on market failures related to rentability, and economic inequality arising from markets for human capital, health, housing, and labor. Students are expected to have working knowledge of basic statistical and economic concepts. Letter grading.

112. Social Movements. (4) Lecture, three hours; discussion, one hour. Introduction to theories, real-life examples, and applied skills for understanding and contributing to social movements. Examination of how and why social movements emerge; how why people join, lead, stay, or drop out of movements; and strategies and tactics by which social movements enact change. Draws upon student’s own social movements inside and outside of U.S. Letter grading.

113. Policy Analysis: Approaches to Addressing Social Problems. (4) Lecture, three hours; discussion, one hour. Introduction to applied policy analysis designed to train students in logic of public policy analysis, introduce them to general skills required to do policy analysis, and to prepare them in persuasive presentation of their work. Development of skills fundamental to effective policy analysis and argumentation. Letter grading.

114. People, Organizations, and Systems. (4) Lecture, three hours. Theoretical approaches to human service organizations to explore social ecology of human organizations as 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 back-up. Letter grading.

115. Using Quantitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, five hours; lab, one hour. Course designed primarily for upper-division (and sometimes graduate) students. Upper-division or equivalent introductory statistics course. Introduction to multivariate quantitative research models used to answer questions in social science. Students gain practical and intuitive understanding of multivariate regression, program evaluation, and research methods, and apply knowledge by analyzing real world data. Focus on practical analytic tools using statistical software. Letter grading.
116. Using Qualitative Methods to Understand Social Problems and Their Potential Solutions. (3) 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 Public Policy. (4) Lecture, three hours. Exploration of how neighborhoods characterized by concentrated poverty affect urban residents. Examination of various public policies and that aim to improve life chances of urban poor. Use of explicitly political lens, evaluating roles that elite institutions, mass media, class and race-based power disparities, and public opinion play in development and implementation of urban policy. Letter grading.

121. Race, Class, Gender, and Spatial Inequality. (4) Lecture, three hours. Introduction to economic and sociological approaches to analyzing dimensions, causes, and consequences of inequality in society. Introduction to public policy concepts and tools for analyzing key urban, labor, and social policies that may help to alleviate inequality in society. Letter grading.

M122. Participatory Action Research on Youth Organizing for Racial Justice. (4) (Same as African American Studies M129B, American Indian Studies M129, Asian American Studies M129, and Chicano and Central American Studies M129B.) Lecture, four hours. Students are trained to conduct participatory action research on grassroots youth organizing across California. Students analyze and map a complex historical and social background on multi-racial and inclusive organizing. Students learn how to collect and analyze data pertaining to pressing organizing issues. Study and critical analysis of youth organizing strategies. Weekly training modules on data collection and grassroots organizing strategies that prepare students for internships in grassroots youth organizing groups serving Asian American, Black, Latinx, and Native American communities. P/NP or letter grading.

M125. Creating Safe and Welcoming Schools. (4) (Formerly numbered 125L.) (Same as Education M177.) Lecture, two hours; discussion, one hour. Examination of historical context and causes of school violence, theories, and diverse perceptions of school climate and safety. Special emphasis on impact of school climate on oppressed groups and how social contexts such as poverty, race, class, Latinx, and Native American communities influence school safety. Letter grading.

123. Practical Applications of Research on Emerging Adults. (4) Lecture, three hours. Focus on practical applications of research相关的 is developing in human development—emerging adulthood—with particular emphasis on experiences of college students. Letter grading.

M129XP. Intergenerational Communication across Lifespan. (4) (Same as Gerontology M129XP and Social Welfare M129XP) 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? Practice your family talk well to be the other as group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, and their interactions have significant impact on both their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

M130. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Gerontology M108 and Social Welfare M108.) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that draw on a wide range of recent research endeavours. Use of conceptual frameworks to increase relevance of aging to students’ lives and enhance their critical thinking—biopsychosocial approach that is based on a complex causal and interactional schema. Course is inherently interdisciplinary, 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.

M131. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana/o and Central American Studies M106B, Gender Studies M106C, Gerontology M104C, and Chicano and Central American 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 multidi- dimensional perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.


135. Firearm Violence Prevention Policy. (4) Lecture, three hours. Examination of range of topics connected to contemporary debates about firearm violence in U.S. Exploration of firearm violence in different contexts. Letter grading.

136. Cannabis Policy and Society. (4) Lecture, three hours. Designed to enable students to formulate responsible opinions on cannabis legalization, industry, regulations, and targeted them with good analysis; and to understand logic behind opinions that may differ from their own. Letter grading.

137. Gangs, Criminal Justice, and Mass Incarceration. (4) Lecture, three hours. Exploration of criminal justice policies that surround gangs, sentencing, prisons, incarceration, and rehabilitation. Students develop understanding of how to communicate knowledge and research regarding criminal justice system, gangs, and mass incarceration. Letter grading.

140. Race, Rights, and Citizenship: Encounters with Bureaucracies. (4) Lecture, three hours. Examination of role of bureaucracies in emergence of, persistence of, and experience of social inequality. Exploration of dilemmas that bureaucrats face as they do their jobs, and experiences of residents who interact with bureaucracies. Consideration of how peoples’ experience of bureaucracies are associated with socio-economic standing, and reflection on how experiences of bureaucracies convey messages about race, citizenship, and belonging. Letter grading.

M142. Latino Social Policy. (4) (Same as Chicana/o and Central American Studies M142.) Lecture, three hours; discussion, one hour (when scheduled). Examination of social welfare of Latinos (Chicano, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of policies affecting them. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Letter grading.


146. U.S. Housing Policy and Geography of Opportunity. (4) Lecture, three hours. Exploration of contemporary levels of racial inequality through lens of U.S. housing policy. Study includes historical overview of federal policies, and critical analysis of ways by which living in racially segregated, high-neighborhoods constraint opportunity and social mobility; exploration of most prevalent affordable housing policies; and evaluation of their respective 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. Examination of policies in different contexts to better understand how institutional, economic, legal, and cultural contexts shape housing policies and housing outcomes. Letter grading.

M152. Local Planning for 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; necessarily 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.

M153. Parking and City. (4) (Same as Urban Planning M153.) Lecture, three hours. Requirements: 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 context of a mode of travel. DOT treats parking as transportation issue that engineers must study. No profession is intellectually responsible for parking, and everyone seems to assume that something is being done. Misunderstanding planning for parking help to explain why planning for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking, Exploration of new ways to improve planning for parking, transportation, and land use. Letter grading.


M157. Built Environment and Health. (4) (Same as Urban Planning CM157.) Lecture, four hours. Examination of important linkages between urban-built environment and public-health outcomes using ecological, urban planning, and community-based lenses through theory and series of case studies. Knowledge of these linkages is used to propose ecological solutions to issues at nexus of built environment and public health. Letter grading.

M158. Trees in City. (4) Lecture, three hours. Introduction of foundational urban ecological concepts used case of urban trees. Includes wide range of disciplines as well as practitioner and community organizing perspectives and critical analysis of 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 M159.) Lecture, three hours; discussion, one hour. Access to safe and sustainable water provision is major challenge for governments. Examination of political, economic, and social dimensions of water provision in Africa, Asia, and Latin America. Issues include water and state building, market reforms and globalization, social mobilization, and citizen demand making strategies, role of citizen in crisis 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 human influence. 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 of urban planning and sustainability, and how many articulations of urban sustainability and how it might be achieved. Letter grading.

M161. Environmental Justice through Multiple Lenses. (4) (Same as Environmental M167, 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 persistent phenomenon, study of environmental justice in multi-population approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP grading.

M164. Science, Technology, and Public Policy. (4) (Same as Electrical and Computer Engineering CM182 and Public Policy CM182.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy is...
165. Advanced Technologies, Law, and Public Policy. (4) Lecture, three hours. Focus on cutting-edge issues in technology and public policy, regulation, and law. 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. Consent of instructor required. P/NP grading.

169C. Honors Contracts. (1) Tutorial, three hours. Limited to seniors 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. Consent of instructor required. P/NP or letter grading.

181A. 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.

M190DC. CAPPP Washington, DC, Research Seminars. (2) Same as Communication M191DC, History M191DC, Political Science M191DC, and Sociology M191DC.) Seminar, three hours. Limited to CAPPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interview, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

191A. Variable Topics Seminar: Public Policy. (4) Same as Public Policy CM191B.) Seminar, three hours; discussion, one hour (when scheduled); outside study, eight hours. Emerging issues in public policy. May be repeated for credit. P/NP or letter grading.

198A-198B-198C. Honors Research in Public Affairs. (2 to 4) Tutorial, to be arranged; fieldwork, six to 12 hours. Limited to juniors/seniors. Internship in supervised setting in corporate, government, or non-profit/community organization setting related to Public Affairs. Students meet with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. May be repeated for credit. May not be used toward Public Affairs major capstone requirement; consult with undergraduate adviser. P/NP or letter grading.

195C. Community or Corporate Internships in Public Affairs. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit/community organization setting related to Public Affairs. Students meet with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. May be repeated for credit. May not be used toward Public Affairs major capstone requirement; consult with undergraduate adviser. P/NP or letter grading.

198A-198B-198C. Honors Research in Public Affairs. (2 to 4) Tutorial, to be arranged; limited to seniors. Research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

198A-198B-198C. Honors Research in Public Affairs. (4–4–4) Tutorial, to be arranged. Limited to senior Public Affairs majors. Requires: courses 115, 116. Course 198A is requisite to 198B, which is requisite to 198C. Development and completion of research project and thesis under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Public Affairs. (2 to 6) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

PUBLIC HEALTH

Interdisciplinary Minor
Jonathan and Karin Fielding School of Public Health

Undergraduate 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, 16-059 Center for Health Sciences, Enroll-
ment 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 53, M106, 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.

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 processes 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 experiences, including both the natural and social sciences.

Graduate Majors

Biostatistics MPH

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 MPH

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.

Doctor of Public Health

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 MPH

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 MPH

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 Management MPH

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 MPH

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

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.

• Master of Public Health/Doctor of Medicine
• Master of Public Health/Latin American Studies MA

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 Health/Asian American Studies MA
• Master of Public Health/Juris Doctor
• Master of Public Health/Master of Public Policy
• Master of Public Health/Master of Social Welfare

Public 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.

50A. Introduction to Public Health I. (5) Lecture, four hours; discussion, one hour. Systematic exploration of history, philosophy, development, and scope of public health in U.S. and globally. Emphasis on scientific, social, and legal basis for public health practice, in-
including strategies for advancing individual, community, and environmental public health. Survey of core public health functions and essential services with special focus on population health, health equity, environmental justice, and financing of health services. Letter grading.

508. Introduction to Public Health II. (5) Lecture, four hours; discussion, one hour. Requisite: course 50A. Exploration of contemporary public health issues and challenges in U.S. and elsewhere with goal to acquaint students with core public health functions, policies, practices, and current strategies for advancing people’s health. Letter grading.


99. Student Research Program. (1 to 2) Tutorial (supervised research or work study) per week. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled for at least 12 quarter hours (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M106. Health in Chican/o/Latino Population. (4) (Same as Chicana/o and Central American Studies CM106.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, patterns of immigration, health insurance, provider training, risk behaviors, and chronic diseases in Latino and other underrepresented minority communities in Los Angeles County. Letter grading.

C150. Fundamentals of Public Health. (4) (Formerly numbered 150.) Lecture, four hours; discussion, one hour. Exploration of foundations of public health by examining public health challenges at local, national, and global levels, and current strategies for advancing population health. Analysis of current public health issues and modern public health policies and practices. May be concurrently scheduled with course C201. Letter grading.

M151. Healthcare in Transitional Communities. (4) (Same as Sociology M142.) Lecture, three hours; discussion one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160A.) Lecture, four hours; discussion, one hour. Exploration of foundations of public health by examining public health challenges at local, national, and global levels, and current strategies for advancing population health. Analysis of current public health issues and modern public health policies and practices. May be concurrently scheduled with course C150. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine 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, with field visits. P/NP or letter grading.

200A-200B. Foundations in Public Health. (8-8) Lecture, seven hours; discussion, one hour. Introduction to foundational concepts, definitions, historical milestones, and methods related to five core disciplines of public health. Using traditional lecture presentations, active-learning case-based classroom discussions, lab sessions, and community projects, students learn essential knowledge about public health as well as skills needed to be effective public health professional, including oral and written presentation skills for relevant audiences, data analytic and presentation skills, and multidisciplinary team-building skills working with students from throughout school of public health. Letter grading.

201. Fundamentals of Public Health. (4) Lecture, four hours; discussion, one hour. Limited to school of public health graduate students. Exploration of foundations of public health by examining public health challenges at local, national, and global levels, and current strategies for advancing population health. Analysis of current public health issues and modern public health policies and practices. May be concurrently scheduled with course C201. S/U or letter grading.

M273. Responsible Conduct of Research in Global Health. (2) (Same as Epidemiology M273.) Lecture, two hours; discussion, two hours. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

401. Public Health as Profession. (4) Lecture, four hours. Limited to Fielding School of Public Health master’s degree students. Introduction to interdisciplinary collaboration, team building, leadership, communication, cultural humility, and implicit bias, while supporting professional development and growth of Master of Public Health students (MPH). Focus on development of strong collaborative skills with opportunities to practice benefiting students entering public health workforce. MPH students participate in systems-based health-care course with dental, medical, and nursing students. S/U grading.

705. Pedagogy: Essential Skills and Innovative Strategies. (2) Seminar, two hours. Designed for School of Public Health doctoral students. Interactive seminar with focus on developing teaching materials for courses and acquisition of skills and tools that help students to become successful and innovative instructors. Active learning methodologies and competencies-based approach to instruction. S/U or letter grading.

490. Public Speaking Mastery for Public Health Professional. (2) Lecture, two hours. In-class exercises, or in-class presentations followed by coaching feedback. Topics focus on developing range of communication skills necessary for students to become confident and effective public speakers. Master’s and doctoral students in programs housed in School of Public Health who are interested in learning how to prepare and deliver impactful, compelling presentations with confidence and professionalism are encouraged to enroll. S/U or letter grading.

495. Preparation for Teaching Public Health. (2) Seminar, two hours. Designed for graduate students. Prepares individuals who will serve as teaching assistants for courses in Fielding School of Public Health. Study of methodologies in teaching public health, including implementing active learning strategies, effectively communicating goals for student learning, developing course materials that are consistent with expectations for student learning, creating inclusive teaching environment, and dealing with difficult situations. S/U grading.

Faculty Roster

Professors

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Public Policy
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Brian D. Taylor, PhD
Frederick W. Torres-Gil, PhD
John D. Villaseñor, PhD
Lynne G. Zucker, PhD

Professors Emeriti

Albert Carnesale, PhD
Robert Dallek, PhD
Franklin D. Gilliam, Jr., PhD
Arleen Leibowitz, PhD
Barbara J. Nelson, PhD

Public Policy / 769
Concurrent degree programs allow students to pursue coursework in such areas as microeconomics, policy analysis and implementation, and offers professionals in both public- and private-sector policy. Both programs have a heavy applied component, familiarizes students with key issues in public education, health care, unemployment and training, drug policy and crime, economic development, national security, and the environment. The department offers the Master of Public Policy (MPP) degree and participates in the undergraduate minor in Public Affairs.

**Undergraduate Study**

The undergraduate minor in Public Affairs familiarizes students with key issues in public policy. Both programs have a heavy applied orientation. For additional information on the minor, see the Public Affairs minor.

**Graduate Study**

The MPP degree program is designed to train professionals in both public- and private-sector policy analysis and implementation, and offers coursework in such areas as microeconomics, statistics, political processes, and public and nonprofit management.

Concurrent degree programs allow students to combine study for an MPP with work toward a JD in the School of Law, an MBA in the Anderson Graduate School of Management, an MD in the Geffen School of Medicine, an MPH in the Fielding School of Public Health, or an MSW in the Department of Social Welfare.

**Graduate Major**

**Master of Public Policy Requirements**

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

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**

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, hammering families, businesses, and government. What political dynamics produced this result and influence possibility and direction of on-going policy change? Examination of framing of health and healthcare: international experience; current status, organization, and financing of U.S. healthcare system; and factors that affect national health policymaking, including comprehensive healthcare reform; framing of problems, role of public opinion, influence of interest groups, composition and organization of Congress, and opportunities for and applications of presidential leadership. P/NP or letter grading.


M120. Race, Inequality, and Public Policy. (4) (Same as African American Studies M120.) Lecture, three hours; discussion, one hour. Background in economics, sociology, or urban studies preferred but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

M127. Understanding Public Issue Life Cycle. (4) (Same as Political Science M124D.) 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, courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or 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 urban laws and regulations. Letter grading.
201. Principles of Microeconomic Theory I. (4) Lec, three hours; discussion, one hour; outside study, eight hours. First course in two-term sequence (see course 204) to prepare students for economic analysis of public policy, with review of economic principles and basic microeconomic theory and policy applications. Consumer theory and demand, producer theory and supply, equilibrium of product and factor markets. Letter grading.

M201A. Microeconomic Analysis for Public Health and Policy I. (4) (Same as Mathematics 104B.) Lec, four hours. Requisites: Mathematics 3A or 3B or 31A. Course M201A is requisite to M204A. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

202. American Political Institutions and Processes. (4) Lecture, three hours; discussion, one hour; outside study, eight 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.

M201B. Variable Topics Seminar: Public Policy. (4) Formerly numbered C191B. (Same as Public Affairs C188SC.) Lecture, three hours; discussion, one hour (when scheduled); outside study, eight hours. Emerging issues in public policy. May be repeated for credit. Concurrently scheduled with course C291B. 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. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.
broadly construed. Topics include health and eco-
nomic impacts of climate change, adaptation to cli-
timate change, efficient and equitable design of envi-
ronmental policies (e.g., cap and trade, carbon taxes).
Development of detailed empirical research proposal
doing of short presentation. Letter grading.

M218. Research Design and Methods for Social
Policy. (4) (Same as Urban Planning M234.) Lecture,
three hours; outside study, nine hours. Limited to
graduate students. How to become more sophisti-
cated consumers of - and purchasers of - quantitative
data, quantitative method, data collection and analy-
sis, economics of policy evaluation. Application of
quantitative research. In the first half of course,
formal principles of quantitative research; in second
half, various data collection methods, including
interviewing, survey design. Letter grading.

M220. Transportation, Land Use, and Urban Form.
(4) (Same as Urban Planning M250.) Lecture, three
hours. Historical evolution of urban form and transpor-
tation systems, intrametropolitan location theory, re-
cent trends in urban form, spatial mismatch hypoth-
esis, 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. (4) (Same as Urban
Planning M253S.) Lecture, three hours. Requisites:
courses 201 and 203, or Urban Planning 207 and 202B.
Demand, supply, and modal split patterns in develop-
ap areas, recent trends and projections into future,
overview of travel forecasting methods, trip generation,
trip distribution, mode split traffic assignment, critique of
traditional models and their assumptions. New meth-
does and new approaches to travel behavior analysis.
Letter grading.

M222. Transportation Economics, Finance, and
Policy. (4) (Same as Urban Planning M256E.) Lecture,
three hours. Overview of transportation finance and
fiscal economics; concepts of efficiency and equity in trans-
portation finance; historical evolution of highway and
transit finance; current issues in highway finance;
private participation in road finance, toll roads, roads
costs and benefits, truck charges, congestion pricing;
current issues in transit finance; rail and transit
subsidies policies, contracting and privatization of
transportation systems. Letter grading.

M223. Transportation and Climate Change. (4)
(Same as Urban Planning M258B.) Lecture, three hours.
How to reduce greenhouse gas emissions from trans-
portation. Critical analysis of policies to improve fuel
economy, promote electric vehicles, and reduce ve-
hicle travel. History and legal frameworks of environ-
mental regulation. Analytical methods to quantify
carbon emissions and estimate emission reductions.
Focus on models that consider a wide range of envi-
ronmental consequences of transportation, from
air pollution to stormwater runoff. Letter grading.

224A. Introduction to Geographic Information Sys-
tems. (4) (Formerly numbered M224A.) Lecture,
three hours. Preparation: one graduate-level statistics
course, familiarity with one packaged statistics pro-
gram. Principles of Geographic Information Systems
(GIS) and applied techniques of using spatial data for
mapping and analysis. Topics include data quality,
data manipulation, spatial analysis, and information
systems. Use of mapping and spatial analysis to
address planning problem. Letter grading.

224B. Advanced Geographic Information Systems.
(4) (Formerly numbered M224B.) Studio, three hours.
Requisite: course 224A. Advanced topics in geo-
graphic information systems (GIS) utilizing geopro-
cessing tools in ArcView, map design, and spatial
analysis. Letter grading.

225. Education Policy and Education Inequality.
(4) Seminar, three hours; outside study, nine hours.
Preparation: statistics background through multiple
regression analysis. Topics include school choice,
standardization, and examination of policies that may reduce socioeconomic
and ethnic disparities in educational success. Topics
include international and national comparisons of edu-
cational standards, and public school choice.
School accountability policies, interventions to im-
prove school or teacher quality, parenting and pre-
school interventions, and supplemental educational
services. Letter grading.

M227. Politics, Power, and Philanthropy. (4) (Same
as Social Welfare M206S and Urban Planning M287.)
Lecture, three hours; outside study, nine hours. Use of
political economy perspective to analyze forces that
have shaped rise and characteristics of nonprofit
sector and its constituent elements. Examination of
social history of nonprofit sector in U.S. Exploration of
legal and policy environments and distinct organiza-
tional forms. Comparative perspective between U.S.
and other countries. Letter grading.

M228. Nonprofit Organizations and Philanthropy:
Management and Policy. (4) (Same as Social Welfare
M241E and Urban Planning M288.) Lecture, three
hours; outside study, nine hours. Increased impor-
tance of nonprofits in government provision of
services, vehicles of humanitarian assistance, policy ad-
vocacy, social entrepreneurs, innovators, and as in-
struments of government reform—have moved this set
of institutions closer to core social welfare, urban
planning and public policy agendas. Introduc-
tional of conceptual background, examination of theo-
ries and aspects of organizational behavior, and man-
agement models and frameworks. Lectures, seminar-
type discussion, in-class presentations, and
guest presentations. Letter grading.

M228B. Global Public Affairs: Governing in Inter-
connected World. (4) (Same as Urban Planning M219S
and Urban Planning M231.) Lecture, three hours; out-
side work, nine hours. Conceptually, focus on inter-
play between three major institutional complexes of
modernity, globalization, and organizations that operate
within them: state, market, and civil society. Study
moves between abstract theory and concrete examples,
of senses of where these institutions and organizations
have come from, and helps chart their present trajectories. From perspective of governance,
assessment of role and configurations of institutions and organizations to address today’s challenges. S/U or
letter grading.

M229. Law and Management of Nonprofit Organi-
zations. (4) (Same as Management M225S.) Lecture,
three hours. Introduction to important legal, financial,
and management issues confronting nonprofit organi-
zations. Topics include how to start nonprofit tax-
exempt organizations, qualifying and maintaining tax-ex-
empt status under IRC Code Section 501(c)(3), corpo-
rate governance, political and legislative activity restric-
tions, and public–private partnerships. Legal, non-
profit accounting, and employment law. S/U or letter
grading.

M230. Immigration Policy and Activism. (4) (Same
as Chicana/o Studies and Chicana/o Studies M27.)
Seminar, three hours. Highlighting roles of race,
gender, sexuality, and citizenship status, exploration of
how immigrant rights activists organize for legaliza-
tion and against deportations, and border mili-
tarization. Letter grading.

M231. Politics of Hood. (4) (Same as Chicana/o and
Central American Studies M206.) Seminar, three
hours. Limited to graduate students. Investigation of
root causes and consequences of critical problems
impacting people who live in hood including poverty,
incarceration, gentrification, welfare, public education,
health disparities, and segregation, among other polit-
ical issues. S/U or letter grading.

M232. Chicana/o and Intersectional Marxism. (4)
(Same as Chicana/o and Central American Studies M257.)
Seminar, three hours. Examination of relation-
ship between Marxism, intersectionality, and early
Chicana/o Marxist influenced intellectual thought.
Focus on key debates and texts on connections be-
tween race, gender, sexuality, and capitalism. Review
of key articles and books examining Chicana/o iden-
tity, labor, family, sexuality, and activism through
women’s history and Chicana/o studies.

M240. Theories of Regional Economic Develop-
ment. I. (4) (Same as Geography M230A and Urban
Planning M236A.) Lecture, three hours; discussion,
one hour. Introduction to theories of location of eco-
conomic activity, trade, and other forms of contact be-
tween regions, process of regional growth and de-
cline, reasons for different levels of economic develop-
ment, relations between more and less developed
regions. Letter grading.

M241. Introduction to Regional Planning. (4) (Same
as Urban Planning M236.) Lecture, three hours. Crit-
ical and historical survey of evolution of regional plan-
ing theory and practice, with particular emphasis on
relations between regional planning and develop-
manship within Western social and political philosophy.
Major concepts include regions and regionalism, terri-
torial community, and social production of space.
Letter grading.

M243. Community Development and Housing Poli-
cies: Roles of State, Civil Society, and Nonprofits.
(4) (Same as Social Welfare M209U and Urban Plan-
ing M275S.) 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 interven-
tions be directed toward increasing homeownership
or through neighborhood strategies? What lessons can
be learned from experiences of other countries? Letter
grading.

M243B. Housing Policy and Planning. (4) (Same
as Urban Planning M296B.) Lecture, three hours. Study
of housing policy and planning focused partly on Cal-
ifornia given rapid changes occurring in state, with
consideration of experiences from other states and
countries and to what extent they are relevant here.
Specific topics may include policies such as social
housing, rent control, and housing finance, issues of
household formation, housing supply, housing sub-
market segmentation, gentrification, and processes
related to housing production and Affirmatively
Furtering Fair Housing. Letter grading.

M244. Shared Mobility Policy and Planning. (4)
(Same as Urban Planning M255S.) 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 plan-
ning and project evaluation processes; high-speed rail
and aviation; public transit policy and planning,
including performance evaluation and route plan-
ning; bike and scooter-sharing; implications of vehi-
cle automation for shared mobility in the years ahead.
Letter grading.

M247B. Comparative Perspective on States, Mar-
kets, and Civil Society. (4) (Same as Social Welfare
M290X and Urban Planning M210B.) Lecture, two and
one half hours. Governance is about solving and man-
aging societal problems, such as climate change, pov-
erty, migration, security, mobility, pollution, or trade re-
lations. Contemporary governance is complex set of
laws, rules, and regulations involving rights and re-
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 relation-
sions can be cooperative, neutral, or fraught with con-
tradictions and conflict, and governance outcomes can vary significantly. These dynamics involve fundamental challenges and,
consequently, require significant governance readi-
ness: resilience, learning, and adaptive capacity.
Letter grading.

CM250. Environmental and Resource Economics
and Policy. (4) (Same as Urban Planning M267.)
Lecture, three hours. Requisites: courses 204 and 206,
or Urban Planning 202. Survey of how economic
theory is used to define, analyze, and resolve prob-
lems of environmental management. Overview of ana-

lytical questions addressed by environmental economists that bear on public policy. Concurrently scheduled with course C115. Letter grading.

251. Public Budgeting and Finance. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. How financial resources are allocated by different levels of government in the U.S. and how each level of government finances its operations and capital investment programs, with particular attention to California. Students form small groups to critically review assigned readings and to report key information to class. Based on assigned readings, development of budget strategies that outline best practices budget strategies to use in various resource availability contexts. Letter grading.

M253. Lesbian, Gay, Bisexual, and Transgender Law and Public Policy Research. (4) (Same as Law M765) Lecture, three hours. Exploration of relevance 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, parenting, 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 advancements in past decade, different types of public policy research, limitations of current data, and research on LGBT issues, difficulties in translating social science research into evidence in courtroom, impact that dominant LGBT rights frame of equality has on health of LGBT community, and how to develop objective research, and effective presentation of social science research before legislators, judges, juries, media, and other audiences. S/U or letter grading.

M265. Pharmaceutical Policy. (4) (Same as Health Policy M252) Lecture, three hours; outside study, nine hours. Policy issues pertaining to pharmaceutical sector. Topics include determinants of expenditures on drugs, price setting in industry, health insurance coverage for pharmaceuticals, and research and development process. Letter grading.

M266. Politics of Health Policy. (4) (Same as Community Health Sciences M287 and Health Policy and Management M257) Lecture, three hours; discussion, one hour. Environmental protection laws and regulations, environmental justice, and social determinants of health. Topics include air and water quality, access to quality health care, pollution, environmental justice, and social determinants of health. 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 addressing identified problems. Students meet in small groups to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Policy M328) Lecture, four hours; discussion, two hours. Preparation: intermediate microeconomics. Microeconomic aspects of health-care system, including health manpower substitution, choice of efficient modes of treatment, market efficiency, costs, and regulation at state and federal levels. Letter grading.

M269. Healthcare Policy and Finance. (4) (Same as Health Policy M269) Seminar, three hours; outside study, nine hours. Exploration of demand for health 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. Letter grading.

M270. Economic Principles and Economic Development in Indigenous Communities. (4) (Same as American Indian Studies M207) Seminar, two 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. Introduction to important concepts such as opportunity cost, economic decision-making, 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 economic development programs and for indigenous peoples and governments. S/U or letter grading.

C171. International Development. (4) Lecture, three hours. Why are some countries rich, while other countries are poor? What can policymakers do to reduce poverty? Discussion of current issues and trends in international development. Focus on the relationship between development and institutions, education, growth, culture, and gender. Reading intensive, seminar-style course. Students are expected to read academic articles and actively 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 Policy and Management 223E) Lecture, three hours; outside study, nine hours. Examination of research and development as a process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral implications; 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 M223E) Lecture, three hours; outside study, nine hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors impeding on their behavior. How technological breakthroughs (or discontinuities) can form new industries or transform nature of and population of firms in existing industries. S/U or letter grading.

M291. Political Environment of American Business. (4) (Same as Management M253A) Lecture, three hours. Evaluation of certain criticisms made by business of American political system. Designed to provide decision-making experience in the broad context of government, law, and business; and effort to create awareness of some of the political forces that influence business. S/U or letter grading.


285. Social Media and Future of Democracy. (4) Seminar, three hours; outside study, nine hours. Examination of role of social media and undermining democratic discourse. Comparison of roles of traditional media and social media in shaping public opinion on political issues. Students will be encouraged to critically analyze social media as an emerging platform for political expression. Letter grading.


291A. Special Topics in Public Policy. (4) Formerly numbered 291. Seminar, three hours. Emerging issues in public policy. May be repeated for credit. Letter grading.

C291B. Variable Topics Seminar: Public Policy. (4) Seminar, three hours; discussion, one hour (when scheduled) outside study, nine hours. Advanced seminar on emerging issues across public policy, social welfare, and international. May be repeated for credit. S/U or letter grading.

M294C. Special Topics in Public Affairs. (4) (Same as Social Welfare M203X and Urban Planning M210A) Seminar, three hours; outside study, nine hours. Advanced seminar on emerging issues across public policy, social welfare, and international. 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 academia and providers provide insight 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, 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 dilution in relevant jurisdictions. Students document various aspects 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.

M296B. Voting Rights Policy and Law II. (4) (Same as Social Science M460B) Clinic, three hours. Required: 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, and political representation. Students learn in greater detail legal theory relevant to bringing successful voting rights challenge, and how to assess contemporary social science research. Students will read case law prior to 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. Required: 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, and political representation. Students learn in greater detail legal theory relevant to bringing successful voting rights challenge, and how to assess contemporary social science research. Students will read case law prior to Voting Rights Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

297A. Public Policy Special Topics. (2) (Formerly numbered 297B) Lecture, two hours. Seminar. Study of emerging issues in public policy. May be repeated for credit. S/U or letter grading.

297B. Public Policy Analysis Lectures. (2) (Formerly numbered 297C) Lecture, two hours. Limited to second-year MPP students. Venue for policymakers, practitioners, and academics to present, discuss, and analyze current policy questions. Attending, formally analyzing, and engaging with policy professionals at these lectures adds to pedagogical and intellectual
maturity of students as they gain greater understanding of the range of the field. Letter grading.

M297C. Current Issues in Public Affairs. (2) (Same as Social Welfare M297B and Urban Planning M297B.) Lecture, one to two hours. Introduction to the 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.

RADIATION ONCOLOGY

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
Nicholas G. Nickols, MD, PhD, Vice Chair, VA Services
Ann Raldow, MD, MPH, Vice Chair, Education
Joanne B. Weidhaas, MD, Vice Chair, Division of Molecular and Cellular Oncology

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 the West Los Angeles VA Medical Center and includes the Division of Brachytherapy, Division of Molecular and Cellular Oncology, and Medical Radiation Physics. Laboratory, 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 transplantation, stereotactic body radiotherapy, brachytherapy-therapy, and stereotactic radiotherapy 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. Catalyzing paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

RADIOSCOPY

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 Science
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)
Stephanie Balkwill, PhD (Asian Languages and Cultures)
John P. Carriero, PhD (Philosophy)
Jeffrey J. Guhin, PhD (Sociology)
Stephanie W. Jamison, PhD (Asian Languages and Cultures)
Eleanor K. Kaufman, PhD (Comparative Literature, English, European Languages and Transcultural Studies)
Terence D. Keel, PhD (African American Studies, Society and Genetics)
Gina V. Konstantopoulo, PhD (Near Eastern 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 undergraduate major in Study of Religion equips students to understand and compare creatively the worldwide varieties of core convictions, stories, texts, rituals, and practices known collectively as religion. Students complete courses in a wide range of departments in which religious phenomena are analyzed, including anthropology, art history, Asian languages and cultures, classics, comparative literature, English, history, Near Eastern languages and cultures, philosophy, political science, and world arts and cultures/dance. Students can anticipate gaining versatile intellectual tools for approaching, analyzing, and appreciating the deep roots, human motivations, and history of the formation of religious traditions in their respective cultural contexts. Within this interdepartmental program, students may focus in depth on one or more specific religions. Students may elect to select this major in combination with a second major field, a minor, or related language study.

Undergraduate Major

Study of Religion BA

Capstone Major
The Study of Religion major is a designated capstone major. Students must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate their ability to plan and carry out a major project, apply subject matter and research methods knowledge to produce a paper or other research project, and organize information into a coherent and persuasive form for oral presentation to their peers.

Learning Outcomes
The Study of Religion major has the following learning outcomes:

- Demonstrated ability to plan a major project that concludes with writing a cogent and convincing document
- Application of knowledge of a wide-ranging bibliography and of methods of research to thoroughly prepare for seriously engaging an interviewee or for writing the prospectus describing the major project
- Development of skills essential to taking oral histories or doing field research in Los Angeles’ multicultural population
- Ability to organize research data into a coherent and persuasive form for oral presentation to peers
- Demonstrated empathy as a critic of a wide array of religious traditions, institutions, and practices

Entry to the Major

Transfer Students
Transfer applicants to the Study of Religion major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one history of religions course, one philosophy of religion course, and two courses from sociocultural anthropology, Buddhism, history of Western civilization, Asian civilizations, civilizations of Africa, and history of China.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Study of Religion M4 or 11, and two courses from Ancient Near East 10, Anthropology 3, Asian M60, History 1A, 1B, 1C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M61, M61W.

The Major

Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion.

Honors Program
Students admitted to honors should take three Study of Religion 198 courses under the guidance of the sponsoring professor. The first 198 course should be taken in spring quarter of the junior year, the second during the following fall quarter, and the third during winter quarter of the senior year. The three courses count as part of the regular requirement of 12 upper-division courses. The program culminates in an honors thesis.

Policies

The Major
During their senior year students must complete the capstone seminar, Study of Religion 191.

A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. A maximum of two upper-division courses in an
ancient language relevant to the course of study may be applied toward the major requirements with consent of the adviser.

A maximum of 12 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. Each course for preparation for the major and the major must be taken for a letter grade.

Honors Program
The honors program provides exceptional students with an opportunity to do independent research under the tutorial guidance of a faculty member.

To qualify for admission students should have a minimum grade-point average of 3.4. The 198 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For more information, contact the student affairs officer or the faculty adviser at the program address.

Undergraduate Minor
Study of Religion Minor

Admission
To enter the Study of Religion minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (4 to 10 units): Study of Religion M4 or 11, or M50 and M60A or M60W.


Student are encouraged to select courses that focus on a specific religious tradition or tradi- tions, or on a set of thematic issues important to the study of religion.

**Policies**
A course may be taken twice, on different topics, for credit toward the minor where repetition is allowed by the department offering the course. A maximum of 4 units of special stud- ies 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.

Successful completion of the minor is indicated on the transcript and diploma.

**Study of Religion Lower-Division Courses**

M4. Introduction to History of Religions. (5) (Same as History M4.) Lecture, three hours; discussion, two hours. Comparative study of eight major religious traditions, with emphasis on their beginnings and subsequent decisive changes in their respective historical developments and interactions. Equips students with intellectual tools necessary for thinking analytically, empathetically, and comparatively about fascinating human phenomena identified as religious, such as sacred acts, places, words, and persons in their varied historical contexts. Development and focus 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 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, and the meaning of Talmud and synagogue; evolution of folk beliefs and year-cycle and life-cycle practices. P/NP or letter grading.

11. Religion in Los Angeles. (4) Lecture, four hours. Introduction to varieties of religious experience in Los Angeles and its environs. Presentations, required readings, and (where possible) site visits to examine selected faiths and spiritual practices throughout Southern California and provide deeper understanding of varying religious ways that they manifest and encounter. Foundational orientations within study of religion (anthropological, historical, psychological, sociological, etc.) used as framework to examine Jewish experience and interaction with various religious communities of Los Angeles. 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 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 M109.) (Same as Islamic Studies M20.) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrinal and practical, and with readings from Qur’an and Hadith; schools of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading.

M40. Christianity East and West. (5) (Same as Slavic M40.) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity—Eastern and Western Orthodoxy, Roman Catholicism, and Protestantism, contrasting how history, dogma, culture, and community structures develop in those three traditions. P/NP or letter grading.

M50. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Middle Eastern Studies M50B) Lecture, three hours; discussion, one hour. Examination of three major monotheistic traditions of Western cultures—Judaism, Christianity, and Islam—historically 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. P/NP 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 clinical examination of historical entwinement of religion, medicine, and society in Western antiquity to early modern period; orientation in Enlightenment to early 20th century; and confluence of science, technology, and capitalism in biomedicine compartmentalized from religion today. Conceptualization of rhetoric and epistemologies of healing—what it means to be healed and how one would know—and put in tension with faith healings and religion-as-medicine, medicine-as-religion, and integrated approaches. Analysis of alternatives to biomedical status in theoretical medicine and in health care delivery, with particular attention to questions of justice and holistic care in U.S. and of policy and practice globally. 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, its spread to Asia, its impact on various religious doctrines and meditation practices most essential to various Asian traditions of Buddhism. Letter grading.

M60B. Introduction to Chinese Religions. (5) (Same as Chinese M60.) 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 common to Buddhism, Daoism, and Confucianism. P/NP or letter grading.

M60C. Introduction to Korean Religions. (5) (Same as Korean M60.) 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 religious doctrines, practices, Korean characteristics, and social impacts. P/NP or letter grading.

M60D. Religion in Classical India: Introduction. (5) (Same as South Asian M60.) Lecture, three hours; discussion, one hour. Introduction to religions of classical language, Brahmanism—Vedic, Hindu—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 M60.) 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. 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 development of Buddhism in Asia. P/NP or letter grading.

M61. Introduction to Zen Buddhism. (5) (Same as Asian M61.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Introduction to Zen traditions and to interplay between Zen and other fundamental cultural and religious concerns in East Asia. Topics include role of Zen within Buddhist thought and practice, artistic and literary arts, society, and daily life. Letter grading.
Upper-Division Courses

101. History of Study of Religion. (4) Lecture, four hours. Credit: History 4 and Survey of major modern theories, methods, and approaches to study of religion to situate them within their own historical, philosophical, and social contexts. Critical consideration of changing and contested meanings of term religion and its relationship to such categories as culture and science as well as to other domains of social experience. Examination of how study of religion has interacted with other academic fields, especially 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. Credit: Persian. Rise and development of Bábí and Bahá’í religions in context of 19th century Iran. Focus on personalities of Báb, Bahá’u’lláh, and `Abdu’l-Bahá. May be taken independently for credit. P/NP or letter grading.

M105B. Bahá’í Faith in Iran: Survey of Bahá’í Scriptures and Thought. (4) (Same as Iranian M105B.) Lecture, three hours. Credit: Persian. Exposition of fundamental and relevant framework for understanding physical reality and human life for inhabitants of Nile Valley. General principles as well as developments through time (circa 3000 BC to 300 CE). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M120. Judaism, Christianity, and Islam: Comparative Approach. (4) Seminar, three hours. Credit: Religion 4 and Survey of religious systems and various media (e.g., print, film, photography, television, radio, and electronic) as they have intersected in specific historical and cultural contexts. Illumination of role of media in forming and expressing religious ideas, practices, and identities. Topics may include representations of religious groups, visual and aural piety, identity formation, interreligious conflict, religious education, and use of media technologies for propaganda or proselytizing purposes. Historical, sociological, and anthropological approaches used in concert with various methodologies current within media studies. P/NP or letter grading.

M161A. Chinese Buddhism. (4) (Same as Chinese CM160.) Lecture, three hours; discussion, one hour. Credit: Religion 4 and Survey of major traditions and various media (e.g., print, film, photography, television, radio, and electronic) as they have intersected in specific historical and cultural contexts. Illumination of role of media in forming and expressing religious ideas, practices, and identities. Topics may include representations of religious groups, visual and aural piety, identity formation, interreligious conflict, religious education, and use of media technologies for propaganda or proselytizing purposes. Historical, sociological, and anthropological approaches used in concert with various methodologies current within media studies. P/NP or letter grading.

M161B. Japanese Buddhism. (4) (Same as Japanese CM160.) Lecture, three hours; discussion, one hour. Credit: Religion 4 and Survey of major traditions and various media (e.g., print, film, photography, television, radio, and electronic) as they have intersected in specific historical and cultural contexts. Illumination of role of media in forming and expressing religious ideas, practices, and identities. Topics may include representations of religious groups, visual and aural piety, identity formation, interreligious conflict, religious education, and use of media technologies for propaganda or proselytizing purposes. Historical, sociological, and anthropological approaches used in concert with various methodologies current within media studies. P/NP or letter grading.

M161C. Korean Buddhism. (4) (Same as Korean CM160.) Lecture, three hours; discussion, one hour. Credit: Religion 4 and Study of Buddhism in Korea in its cultural context, with emphasis on key ideas and teachings. Letter grading.

M162A. Premodern Islam. (4) (Same as History M106.) Lecture, three hours; discussion, one hour (when scheduled). Credit: History 4 and Survey of religious traditions in Judentism and Christianity and in the context of Islamic history. Focus on Nasir al-Din al-Tusi and his work as one of the leading Islamic scholars of the 13th century. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M107.) Lecture, three hours; discussion, one hour. Credit: Arabic 4 and Acquisition of understanding of major religious traditions and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis
theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Letter grading.

M161D. Buddhism in India. (4) (Same as South Asian CM160D.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of territory and history of Buddhism from its origins to its disappearance in India, based not only on texts but on archaeological, art historical, and iconographical sources. Examination of both formal doctrine and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Letter grading.


M173C. Shinto, Buddhism, and Japanese Folk Religion. (4) (Same as History M173C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of various ways, great and little; Shinto’s connection with cultural nationalism, Buddhism’s medieval Reformation and Zen’s relation to warrior culture, folk religious aspects such as shamanism, folk worship, and millenarianism. P/NP or letter grading.

M174D. Indo-Islamic Interactions, 700 to 1750. (4) (Same as History M174D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim communities of what eventually became nations of India, Pakistan, and Bangladesh. Topics include social, political, religious, and cultural history. P/NP or letter grading.

M174E. Indo-Islamic Interactions, 1750 to 1950. (4) (Same as History M174E) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of factors that, from Christian missionaries to Islamic madrassas schools and colonial rebellions, gave shape to multifaceted Muslim reformation in context of colonial modernity. P/NP or letter grading.

M175. Topics in Philosophy of Religion. (4) (Same as Philosophy M175.) Lecture, three hours; discussion, one hour. Requisite: Philosophy 21 or 22. Intensive investigation of one or two topics or works in philosophy of religion. Topics may include attributes of God, arguments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of instructor.

177. Variable Topics in Religion. (4) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion, such as religion and science, religion and society, politics, mysticism, ideas of revelation, scriptural authoritative language, and ritual. May be repeated for credit with topic change. P/NP or letter grading.

M178. Variable Topics. (4) (Same as Middle Eastern Studies M178.) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion and Middle Eastern studies. May be repeated for credit with topic change. P/NP or letter grading.

M179. Topics in Moral Philosophy: Evil. (4) (Same as Philosophy M179.) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Exploration of philosophical issues raised by topic of evil actions and/or evil people. Issues may include nature of evil, problem of evil and theodicies, responsibility for evil and problem of free will, causes and motivations for evil action, and variant responses to evil such as forgiveness and punishment. P/NP or letter grading.

180. Religion and Modern Critical Thought. (4) Lecture, four hours. Examination of how various traditions of modern critical thought inform academic study of religion, with primary focus on philosophical analysis of religious belief and its relationship to other areas of theoretical discussion, such as philosophy of language, discourse analysis, epistemology, metaphysics, ethics, practice theory, and political theory. Topics may include nature of religious experience and its epistemological embodiment and religious self, relationship between knowledge, faith, and doubt, nature and function of religious language, relationship between science and religion, religious belief and standards of rational discourse, theoretical approaches to problems of religious diversity and competing truth claims, formation of religious and secular in modernity. P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as History M182A and Jewish Studies M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as History M182B and Jewish Studies M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Jewish Studies 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 adaptation of Jewish religious texts to its distinct and various forms. P/NP or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as Ancient Near East M185D and History M185D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main polytheistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to religion of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magic, wisdom, and moral conduct. P/NP or letter grading.

M186A. History of Early Christians. (4) (Same as History M186A.) 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 responses to Jesus of Nazareth, writings produced during this period, movement’s encounters with its religious, social, and political world, and methods of research. P/NP or letter grading.

M186B. Religious Environment of Early Christians. (4) (Same as History M186B.) 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 in context of developing Christian movement. Topics include Pharisees, Essenes, Gnostics, Epicures, traditional Greek and Roman religions, mysteries, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.

M186C. Jesus of Nazareth in Historical Research. (4) (Same as History M186C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185B. Designed for juniors/seniors. Stimulated by significant post-Enlightenment historical evaluations, students are led into 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.

187XP. Religion, Society, and Civic Engagement. (4) (Formerly numbered 187SL.) Seminar, three hours; fieldwork, two hours. Examination of various topics related to religion and civic engagement, with particular emphasis on justice and coexistence in pluralistic societies. How are we to best enact—or manage—their tensions in what city of angels means. Key themes may include cities and utopia, secularism and secularity, liberal democracy, trust, solidarity, access, equality, liberty, philanthropy, and catalyogift. May be repeated for credit with topic or instructor change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research under direct supervision of faculty member. Must be taken twice for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Study of Religion. (4) Seminar, four hours. Preparation: completion of pre-requisite for major courses and at least half of upper-division courses required for major (including theory and methods courses). Designed for seniors. Seminar on central method and/or theme in study of religion. Refinement and integration of this knowledge by means of close reading and analysis of primary documents, debating contested issues, and researching and writing original paper. P/NP or letter grading.

198. Honors Research in Religion. (4) Tutorial, three hours. Limited to juniors/seniors. Development and completion of 40-page honors thesis under direct supervision of faculty member. Must be taken twice to receive departmental honors program credit. Individual contract required. May be repeated for a maximum of 12 units. Tutorial grading.

199. Directed Research in Study of Religion. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. Twelve units may be applied toward major. Individual contract required. Letter grading.

RESEARCH PRACTICE

College of Letters and Science
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Los Angeles, CA 90095-1430

Research Practice
310-825-2935
Program e-mail
Muriel C. McClendon, PhD, Humanities, Arts, and Social Sciences Chair
Craig A. Merlic, PhD, Sciences Chair

Faculty Committee
Whitney L. Arnold, PhD (Comparative Literature)
Tama W. Hasson, PhD (Integrative Biology and Physiology)
Beth A. Lazazzera, PhD (Microbiology, Immunology, and Molecular Genetics)
Muriel C. McClendon, PhD (History)
Craig A. Merlic, PhD (Chemistry and Biochemistry)

Overview
The Research Practice subject area includes interdisciplinary courses in the practice of research. Hosted by the Undergraduate Research Center—Sciences and the Undergraduate Research Center for Humanities, Arts and Social Sciences, research practice courses cover the development of research

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Los Angeles, CA 90095-1430

Research Practice
310-825-2935
Program e-mail
questions and the application of methodolo-
gies, as well as forms of qualitative and quanti-
tative analysis, and research communications
and publications. The courses combine theory
and practice, and emphasize experiential learn-
ing. Students do not just gain knowledge and
skills in their discipline; they also develop an
understanding of how knowledge is created and
applied across the university.

Research practice courses expand on important
skills for success in research, and also ex-
plore how research skills integrate into a variety
of careers. Research practice courses are not
associated with one department; students in
any major can select. Some courses are associ-
ated with a research, journal, or scholarship
program, and acceptance into that program is
required to enroll. Other courses have an open
enrollment. For more information see Re-
search Practice—UCLA Undergraduate Re-
search.

Research Practice

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one
hour. Discussion of and critical thinking about topics
of current intellectual importance, taught by faculty
members in their areas of expertise and illuminating
major and minor career paths of discovery at UCLA. P/NP grading.

97XA. PEERS Freshman Seminar: Succeeding in
Science. (1) (Formerly numbered Ecology and Evolu-
tionary Biology 97XA) Seminar, one hour. Limited to
students in Program for Excellence in Education and Research
in Sciences (PEERS). Series of lecture, workshops, and discussions to enhance student suc-
cess in sciences by developing critical academic sur-
vival skills, acquainting students with practice of sci-
cence, and highlighting opportunities available to par-
ticipate in research as undergraduate students. P/NP grading.

97XB. PEERS Sophomore Seminar: Pathways in
Majors, Careers, and Entry into Research. (1) (For-
merly numbered Ecology and Evolutionary Biology
97XB) Seminar, one hour. Limited to students in Pro-
gram for Excellence in Education and Research in Sci-
ces (PEERS). Series of lectures and workshops to
enhance student success in sciences by acquainting
students with practice of science, opportunities avail-
able to participate in research as undergraduate stu-
dents, and careers available to students with science
degrees. P/NP grading.

97XC. Transfer Success and Pathways to Under-
graduate Research for Life Sciences Majors. (4)
Seminar, one hour. Limited to new transfer students.
Designed to provide essential academic skills for life
science transfer students, and promote engagement
in university research including instruction on securing
research opportunities and skills necessary for re-
cruit students for graduate school and teaching oppor-
tunities in life sciences for students majoring in life sciences.
P/NP 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
enrolled in minimum of 12 units (excluding this course).
Individual contract required; consult Undergraduate
Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110A. Careers in Libraries and Archives. (2) (For-
merly numbered Honors Collegium 101MA) Seminar,
two hours. Study of wide variety of careers in libraries
and archives. Introduction to career pathways of var-
ious professionals. Brief discussion of professional is-
sues in these fields especially in relation to recruitment
and retention of individuals in these professions.
Discussion of careers in variety of locations and types of
libraries and archives, with emphasis on outstanding professionals at UCLA. Stronger focus on careers in
academic spaces.

110B. Preparing for Post-UCLA Undergraduate Re-
search Journal. (2) Seminar, two hours. Prepares students to achieve goals beyond UCLA. Participants reflect on values and interests, and
learn what is required for effective applications to
graduate school, scholarships, and more. Review of
process for applying for nationally competitive awards
such as Truman, Rhodes, Marshall, and others. Stu-
dents learn to craft effective curricula vita, strong personal statements, and compelling research pro-
posals. Students learn to solicit strong letters of re-
commendation. Skills are preparation for scholarship/
undergraduate research, as a graduate school, and job application process. P/NP grading.

M180. Research Writing Workshop. (5) (Same as
English Composition M180.) Lecture, three hours; lab-
atory, four hours. Advanced workshop designed for
juniors and seniors engaged in large-scale research
projects in humanities or social sciences. Students
work with graduate students, and writing skills
through class sessions, digital research notebook, and
writing workshops. Students practice giving, re-
ceiving, and incorporating feedback through peer re-
view, and develop research projects in consultation
with colleagues, instructor, and faculty and libraries.
Culminates with completion of literature review, aca-
demic article, or thesis chapter. P/NP or letter grading.

191A. Topics in Research Practice: Research Re-
ported. (2) Seminar, two hours. Limited to students
participating in Research Revealed undergraduate re-
search preparation program. Students are prepared to
conduct their own research, apply to research pro-
grams, or assist faculty members. Topics vary by term.
P/NP grading.

192B. Undergraduate Research Journal for Hu-
manities and Social Sciences. (2) Limited to
students on editorial board of Aepl journal. Students
participate in workshops to assess, edit, and publish journal articles. May be repeated for maximum
of seven times. P/NP grading.

193. Research Seminar: Integrated and Interdisci-
plinary Undergraduate Research Program Journal
Club. (2) Unconventional readings in key scientific jour-
als, covering a wide variety of research. Students
participate in discussions. P/NP grading.

194A. Mellon Mays Undergraduate Fellows Re-
search Seminar. (2) Seminar, two hours. Limited to
current Mellon Mays undergraduate fellows. Designed to sup-
port students in their research, and in preparation for
graduate school and professional careers. P/NP grading.

194B. Research Seminar: Writing Research Pro-
posals and Graduate Applications. (2) Seminar, two
hours. Limited to current Mellon Mays undergraduate
fellows. Designed to support students in their re-
search, and in preparation for graduate school and
professional careers. P/NP grading.

195. Research Activities. (4) Seminar, two hours.
Designed to provide undergraduate students with
training in research methods, critical thinking skills,
and planning skills in research. P/NP grading.

Overview

The Science Education minor provides prepa-
rations for careers where teaching is an import-
ant component, including middle and high
school, community college, university, or other
science-related outreach careers. Students who
wish to become middle or high school sci-
cence teachers and who plan to teach as gradu-
ate students in their disciplines are the primary
focus. The minor supplies the broad general
science background included in California state
subject matter credential examinations, educa-
tion coursework, field experiences in the devel-
oment, management, and teaching of science
laboratory instruction in grades 7 through 12,
and UCLA-based teaching practicums in
lower-division science laboratory.

SCANDINAVIAN

See European Languages and Transcultural Studies

SCIENCE EDUCATION

Interdisciplinary Minor

College of Letters and Science

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Science Education 310-794-2191

Minor e-mail

Patricia E. Phelps, PhD, Co-Chair

Arlene A. Russell, PhD, Co-Chair

Faculty Committee

Jennifer R. Casey, PhD, ex officio (Chemistry and Biochemistry)

Eric J. Deeds, PhD (Integrative Biology and Physiology)

Neil K. Garg, PhD (Chemistry and Biochemistry)

Rashmita S. Mistry, PhD (Education)

Gaston M.U. Pfluegl, PhD, ex officio (Life Sciences)

Patricia E. Phelps, PhD (Integrative Biology and Physiology)

Jody Z. Priselac, EdD (School of Education and Information Studies)

Arlene A. Russell, PhD (Chemistry and Biochemistry, Education)

Joshua F. Samani, PhD (Physics and Astronomy)

Shanna Shaked, PhD, MAT, ex officio (Environment and Sustainability)
Undergraduate Minor
Science Education Minor

Admission

Students eligible for admission to the Science Education minor should be making normal progress on the preparation for a major in the sciences or engineering whether they have declared such a major or not. They must have completed nine courses selected from the following, with at least one course from each of the four categories: (1) Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL (or 20A, 20B, 20L, 30A, 30AL), (2) Life Sciences 7A, 7B, 7C, 23L, (3) Mathematics 3A, 31A or Life Sciences 30A, and (4) Physics 1A, 1B, 4AL, 4BL (or 5A, 5B, 5C). Prior participation in a supervised experience in schools is recommended.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better. Students must consult with the academic coordinator responsible for the minor to plan a coherent program to complete both the minor and their major, prior to filing a petition to enter the minor.

The Minor

Required Lower-Division Courses (6 to 8 units): Science Education 1XP or 10XP or 15XP, and Earth, Planetary, and Space Sciences 1 (Earth, Planetary, and Spaces Sciences 101 or C113 or Atmospheric and Oceanic Sciences 101 or 102 or 103 may be substituted for course 1).

Required Upper-Division Courses (22 units minimum): (1) Education 127, (2) Science Education 100XP, (3) at least three units selected from Chemistry and Biochemistry 192A, 192B, Life Sciences M192A, 192C, 192D, 192E, Physics 192M, M192S, Physiological Science 192A, 192B, and (4) at least one and no more than two courses selected from Education M102, M103, 104A, 105B, 106A, 107A, 107B, M108, C111, 123, 126, M131A, 132, M136, 139, 141.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course, except Science Education 1XP, 10XP, or 15XP, must be taken for a letter grade, with a grade of C or better in each, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Science Education

Lower-Division Courses

1XP. Classroom Practices in Elementary School Science. (2) (Formerly numbered 1SL) Seminar, 90 minutes; fieldwork, three hours per week for eight weeks. Introduction for prospective science teachers to field of elementary education and teaching and learning of science in elementary school classrooms. Pairs of students are placed in local elementary school classrooms to observe, participate, and assist mentor teachers in instruction. Introduction to inquiry-based learning practices, national and California standards, reading and learning differences in children, and cognitive ability of elementary-age children as it relates to introduction of concepts, curricular planning, classroom management, and learning assessment. P/NP grading.

10XP. Classroom Practices in Middle School Science. (2) (Formerly numbered 10SL) Seminar, 90 minutes; fieldwork, three hours. Recommended requisite: course 1XP. 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. (3) Seminar, two 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 to 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. (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 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. (6) (Formerly numbered 100SL) Seminar, three hours; service learning fieldwork, three hours. Recommended requisite: course 1XP or 10XP. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in 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.

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

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Gail D. Lenhoff, PhD
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Ronald W. Vroon, PhD (Vladimir and Lydia Markov Professor of Russian Literature)

Professors Emeriti
Henning Andersen, PhD
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Emily R. Kleinin, PhD
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Associate Professor
Vadim Shneyder, PhD

Senior Lecturers
Susan C. Kresin, PhD
Anna Kudyma, PhD

Lecturers
Melinda Borbely, MA
Yelena Furman, PhD
Viktoria Lejko-Lacan, PhD

Adjunct Professor
Vladimir Paperny, PhD
Overview
The Department of Slavic, East European, and Eurasian Languages and Cultures offers a wide array of courses in the languages and cultures of Russia and of central and eastern Europe. Instruction is offered in Czech, Hungarian, Polish, Romanian, Russian, Serbian/Croatian, and Ukrainian to provide students with the necessary linguistic skills to pursue advanced work in the literature, culture, history, politics, and social structures of these areas. Students have the choice of several majors and minors and the opportunity to enhance their knowledge and skills through programs of study abroad.

Undergraduate Study
The department offers three majors: (1) Central and East European Languages and Cultures, (2) Russian Language and Literature, and (3) Russian Studies. The equivalent of a major in Central and East European Languages and Cultures or Russian Language and Literature is normally required for admission to the department graduate program and is used to determine the number of courses in Russian literature and/or linguistics that students majoring in Russian Studies are expected to make up in order to receive graduate degrees in the department. Students not majoring in Central and East European Languages and Cultures or Russian Language and Literature who intend to pursue graduate study in the department are strongly encouraged to take courses in Russian literature and linguistics during their undergraduate years to reduce the number of makeup courses required. Qualified seniors may also take graduate courses numbered below 220 with consent of the instructor and the graduate and undergraduate advisers.

Undergraduate Majors
Central and East European Languages and Cultures BA
The major in Central and East European Languages and Cultures is designed to provide students with a mastery of one language of central or eastern Europe and familiarity with the literature, as well as general background in the cultural, political, and social history of the Slavic peoples.

Capstone Major
The Central and East European Languages and Cultures major is a designated capstone major. Students must complete a capstone seminar and present their final paper in the department annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.

Learning Outcomes
The Central and East European Languages and Cultures major has the following learning outcomes:
- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in a Central and East European language or Russian to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

Entry to the Major
Transfer Students
Transfer applicants to the Central and East European Languages and Cultures major with 90 or more units must complete the following introductory course prior to admission to UCLA: one culture, history, or civilization course on one or more European nations.
Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Central and East European Studies 91 or Slavic 90.

The Major
Required: (1) One three-quarter (12 to 15 units) introductory central and east European language sequence, or one 12-unit intensive introductory central and east European language course, to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, 103, Serbian/Croatian 101A, 101B, 101C, 103, or Ukrainian 101A, 101B, 101C; (2) one three-quarter (12 to 15 units) language sequence to be selected from Czech 102A, 102B, 102C, Hungarian 102A, 102B, 102C, Polish 102A, 102B, 102C, Romanian 102A, 102B, 102C, Serbian/Croatian 102A, 102B, 102C, or Ukrainian 102A, 102B, 102C, or any three courses from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 130A, 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, Ser-
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:

- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Russian Language and Literature major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

### Preparation for the Major

**Required:** Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**The Major**


During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis.

**Honors Program**

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis. The honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major.

**Policies**

**The Major**

Students may petition to substitute courses after consulting with the undergraduate adviser. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Honors Program**

**Admission**

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. At the time of admission, students must have completed at least two upper-division courses in their major. Prior to admission to the honors program, students must identify a faculty adviser, who must be a regular member of the UCLA faculty; the faculty adviser must commit to mentoring the student for the duration of the program. Students must also write a two-page proposal of the project, to be approved by the faculty adviser and submitted with the application form.

**Requirements**

The courses must be taken during senior year (fall, winter, and spring terms respectively). Students pursuing departmental honors must submit the contract for each course by the end of the tenth week of the previous quarter. The sequence culminates in the submission of a thesis. Students who enroll in the honors program are exempt from taking the standard thesis course sequence (Slavic 191TA, 191TB, 191TC).

The honors thesis is intended to be a substantial piece of original scholarship at least 40 pages in length exclusive of front matter, appendices, and bibliography (25 pages to satisfy the regular capstone senior thesis major requirement). Students are required to use a Slavic, east European, or Eurasian language in their research, with the scope of the language work to be determined in consultation with their faculty adviser. Evaluation of the honors thesis is made by the faculty adviser.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Slavic 198A, 198B, 198C with grades of B or better.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A– or better.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

In the event that a student does not complete the departmental honors program or qualify for departmental honors/highest honors, their paper may count toward the regular capstone senior thesis requirement for their major (25 pages minimum to satisfy requirement).

**Russian Studies BA**

The major in Russian Studies is designed for students who wish to complement mastery of the language with an array of courses on Russian history, politics, literature, and culture.
Capstone Major

The Russian Studies major is a designated capstone major. Students must complete a capstone seminar and present their final paper in the department annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.

Learning Outcomes

The Russian Studies major has the following learning outcomes:

- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in Russian or a related language to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

Entry to the Major

Transfer Students

Transfer applicants to the Russian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

The Major


During their senior year, students must also take Slavic 191TA, 191TB, 191TC in which they complete a capstone senior thesis.

Honors Program

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

The honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major.

Policies

The Major

Students may petition to substitute courses after consulting with the undergraduate adviser.

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

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. At the time of admission, students must have completed at least two upper-division courses in their major. Prior to admission to the honors program, students must identify a faculty adviser, who must be a regular member of the UCLA faculty; the faculty adviser must commit to mentoring the student for the duration of the program. Students must also write a two-page proposal of the project, to be approved by the faculty adviser and submitted with the application form.

Requirements

The courses must be taken during senior year (fall, winter, and spring terms respectively). Students pursuing departmental honors must submit the contract for each course by the end of the tenth week of the previous quarter. The sequence culminates in the submission of a thesis. Students who enroll in the honors program are exempt from taking the standard thesis course sequence (Slavic 191TA, 191TB, 191TC).

The honors thesis is intended to be a substantial piece of original scholarship at least 40 pages in length 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 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A or better.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A or better.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

In the event that a student does not complete the departmental honors program or qualify for departmental honors/highest honors, their paper may count toward the regular capstone senior thesis requirement for their major (25 pages minimum to satisfy requirement).

Undergraduate Minors

Central and East European Studies Minor

The Central and East European Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Sciences with exposure to a variety of disciplines pertinent to the study of central and eastern Europe, including language, literature, history, political science, folklore, ethnomusicology, and women’s studies.

Admission

To enter the minor students must be in good academic standing (2.0 minimum grade-point average) and file a petition with the department counselor in 322B Kaplan Hall, 310-825-3856.

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.

**Russian Language Minor**

**Admission**

To enter the Russian Language minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses** (9 to 17 units): Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**Required Upper-Division Courses** (20 to 23 units): Students select one of the following options: (1) Russian 101A, 101B, 101C and two additional Russian language or literature courses; (2) Russian 100A, 100B, 100C and two additional Russian language or literature courses; or (3) five Russian language and literature courses selected from 102A, 102B, 102C, 102A, 102B, 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 Upper-Division Courses** (20 units): Russian 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. 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 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.

**Graduate Major**

**Slavic, East European, and Eurasian Languages and Cultures MA, CPhil, PhD**

The graduate program provides advanced training in Slavic literatures and linguistics leading to the MA and PhD degrees in Slavic, East European, and Eurasian Languages and Cultures. The primary task of the department faculty is to develop and refine the critical and analytic skills of its students in preparation for productive careers in college teaching and research in the Slavic field. Alternative careers include language teaching, business translation, interpreting, librarianship, and government service.

**Requirements**

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

**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.
Central and East European Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP or letter grading.

31. Introduction to Slavic, East European, and Central Asian Cultures through Film. (6) Lecture, three hours; discussion, one hour. Interdisciplinary introduction to diversity of languages and cultures represented in Department of Slavic, East European, and Eurasian Languages and Cultures through medium of film. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

125. Interwar Central European Prose. (4) Lecture, three hours. Analysis of selected novels, stories, plays, and essays of representative authors of 1920s and 1930s in transition. Special attention to relation between literature and historical and ethnic concerns. P/NP or letter grading.

126. Cold War Central European Culture. (4) Lecture, three hours. Examination of Cold War Central European culture through literature, film, and films 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. P/NP or letter grading.

127. Central European Culture after Fall of Communism. (4) Lecture, three hours. Examination of Central and East European culture through literature, film, visual arts, music, and other cultural artifacts from 1989 to present. Analysis of Polish, Czech, Slovak, Romanian, Hungarian, former Yugoslav, and East German writers, essayists, filmmakers, musicians, visual artists, and graphic novelists in order to reflect on nature of political and societal changes after fall of communism. P/NP or letter grading.

130. Baltic Cultures in Film and Literature. (4) Lecture, three hours. Examination of cultural and linguistic issues in Western Baltic states (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 Yugoslavia by analyzing movies, literature, and music. All texts and films are in English translation. No prior knowledge of Western Baltic languages is required. 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 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.

91. Culture and Society in Central and Eastern Europe. (6) Lecture, three hours; discussion, one hour. Interdisciplinary introduction to main themes and concepts of Central and East European studies, including historical, political, social, and linguistic aspects of countries and languages spoken in area. Focus on politics, society, and culture in communist and early post-communist periods: party control and disintegration; national economic planning and private entrepreneurship; atheistic education and state religion; politically engaged literature, mass media, and freedom of expression; sports, visual and performing arts, and national identity. 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. Introduction to Czech Language and Culture. (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be repeated. P/NP or letter grading.

102A-102B-102C. Advanced Czech. (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 repeated. P/NP or letter grading.


155. Survey of Czech Literature from Middle Ages to Present. (4) Lecture, three hours. Lectures and readings in English. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Czech. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in intermediate Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Czech. (2) (each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in intermediate Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

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.

189BHC. 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. P/NP or letter grading.

Upper-Division Courses

M120. Women and Literature in Southeastern Europe. (4) Lecture, three hours. Comparative literature. M120 Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Montenegro, Poland, Romania, Slovakia, Slovenia, Turkey) in last forty years. Emphasis on cultural, social, political, and economic factors affecting women's roles during countries' transition from agricultural to industrial economy and from communism to post-communism (in former communist countries). Sensitizes students to complexity of issues in region and helps them better understand multiplicity of causes of present situation. Interdisciplinary study, drawing on sociological/women's studies, articles, and short fiction by women writers for analysis. Discussion of topics covered in articles, positions taken by authors, and ways in which aspects of Southeast European realities are rendered in fictional form by women writers from region. 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.

98. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Czech

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP or letter grading.

Slavic, East European, and Eurasian Languages and Cultures / 785
Hungarian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. 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 Hungarian. (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.

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, 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

Lithuanian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Lithuanian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Lithuanian. (4-4-4) 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 Lithuanian language. P/NP or letter grading.

102A-102B-102C. Advanced Lithuanian. (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.

Polish

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. 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. (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.
187B-187M. Advanced Tutorial Instruction in Polish. (2 each) 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.

189. 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.

190. Introduction to Russian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Russian people and their historical background. P/NP or letter grading.

90. Introduction to Russian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Russian people and their historical background. 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. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

101A-101B-101C. Elementary Romanian. (5–5–5) Lecture, five hours; laboratory, one hour. Course 101B 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 repeated 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 prerequisite: course 102C or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Romanian. (2 each) Tutorial, 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 lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

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. Introduction to Russian culture and society from earliest times to 1917. P/NP or letter grading.

15A-15B. Accelerated Elementary Russian. (6–7) 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.

187. 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.


25. Great Russian Novel. (5) Lecture, three hours; discussion, one hour. Focus on 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 one 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 work 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. Global cultural rejection of Russian heritage in most former Soviet territories, key distinctions in humanities have become unclear, including fundamental confusions between limits of Slavic and Near Eastern studies. Examination of relation of Russia’s culture to its borders: Caucasus, Central Asia, China, and Japan. P/NP or letter grading.
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 who speak Russian but have difficulty 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 100A 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; includes multimedia component. P/NP or letter grading.

102A-102B-102C. Topics in Advanced/Superior Russian. (4–4–4) Lecture, three hours. Enforced requisite: course 101C 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, films, and videos, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Native Speakers. (3–3–3) 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; discussion, one hour. Preparation: third-year Russian. Lectures and readings in Russian. Exploration of texts and media in social sciences and culture, with emphasis on press, television, and digital media. 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, with emphasis on the Russian language and official correspondence. P/NP or letter grading.

110. Russian Flagship Program Abroad: Intensive Advanced Russian. (12) Lecture, 19 hours. Enforced requisites: courses 101A, 101B, 101C or equivalent coursework as determined by department. Taught in Russian. Designed for students with high proficiency in Russian. Intensive advanced seven-week course in Russian language covering reading, writing, speaking, listening, and grammar. Lectures on Russian history also included; opportunity to interact with Russian speakers outside of class and serve as volunteers. Part of Russian Flagship Program Abroad. May not be repeated for credit. Offered in summer only. Letter grading.

111A-111B-111C. Russian Flagship Program Abroad: Superior Russian. (5–5–5) Lecture, three hours. Enforced requisite: course 110 or equivalent coursework as determined by department. Course 111A is enforced requisite to 111B, which is enforced requisite to 111C. Taught in Russian, with emphasis on communicative competencies and advanced proficiency. Development of skills in Russian phonetics, conversation, and grammar. Acquisition of advanced syntactic competence and elaboration 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. Russian Flagship Program Abroad: Russian Literature 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 and situations outside of course. Opportunity to communicate in Russian in authentic contexts by participating in courses with local students, providing service to community, or interning in one business. Letter grading.

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. tracing of Russian and its culture, Appanage principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

119. Golden Age and Great Realists. (4) Lecture, three hours. Fourteen seminars; junior and senior 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) in its cultural, 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 Romantic Poets. (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 classical(tradi- tions in art and the arts and modern Western culture. Death of an attempt at creation of another period away from written word into neighboring forms of expression, primarily visual. Consideration of battles of modern storytelling with cinema, television, animation, music videos, and Internet. Letter grading.

122. Siberia. (5) Lecture, three hours. Introductory survey in which current cultural and ecological issues are examined in light of geographical and 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 selected 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 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 C227. 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, narra- tive poems, plays, prose fiction, and selected letters. Concurrently scheduled with course C224P. P/NP or letter grading.

C124T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novels, excerpts from the diaries 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 Russian. Introduction to alternative tradition of women's writings in Russia and Soviet Union. Emphasis on images expressed in literature as compared with those found in works of contemporary male writers. P/NP or letter grading.

128. Russian Science Fiction. (4) Lecture, three hours. Readings in English. Introduction to Russian science fiction in the 20th century. Selection of science fiction in development of Russian culture before and after the October Revolution. 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 replaced by focus on light of study of visual workings. New attitude toward our own changing cul- ture (i.e., toward its future) has equal value if applied retrospectively to multiple cultures of one entertainment. In territory where many traditions 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 vi- sorial narrative reflect changes which much better than ponderous grandeur of feature-length cinema. Letter grading.

130A-130B-130C. Russian Poetry. (4–4–4) Lecture, three hours. Preparation: this course is recom- mended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. 130A. Introduction to Analysis of Russian Po- etry. Role of biography, culture, and form in interpreting poetic texts. 130B. Poetry of Russian Neoclassiclism, Romanticism, and Realism. Major works of late 18th and 19th centuries in their historical
Lecture, three hours. History, form, and function of various media. (Same as M120). Concurrently scheduled with course C122A. 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, 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.


156. Russian Folk Literature. (4) Lecture, four hours. Lectures and readings in Russian. P/NP or 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 C124D. S/U 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 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. Designated to conduct to upper-division lecture course or 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 Courses


211A. Literature of Medieval Rus'. (4) Lecture, three hours. Requisites: course 201. Survey of the literature from its beginning through the Kievan and Muscovite periods up to the 17th century.


213A. 20th-Century Russian Literature, 1880 to 1930. (4) Lecture, three hours. Requisites: course 201 (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 Khlebnikov, Tvardovsky, Zhitelyov, Pasternak, Platonov, and others.


224D. 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.


224P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, pastoral, epic and play. Concurrently scheduled with course C124P. S/U or letter grading.

224T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novellas, excerpts from the diaries and one major novel such as War and Peace or Anna Karenina. Concurrently scheduled with course C124T. S/U or letter grading.

224U. Russian Folklore. (2 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 C124U. S/U or letter grading.


270. Russian Poetics. (4) Lecture, three hours. Introductory 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.

277. Studies in Russian Literature: Nabokov. (4) Lecture, three hours. Lectures and readings in English. Russian novelist (The Gift), American novelist (Loita), autobiographer (Speak Memory), and critic. Concurrently scheduled with course C127N. 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. Requisites: 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. Russian Literary Criticism. (4) Seminar, three hours. Requisites: courses 211B, 212A, 212B, 213A. Detailed study of specific school of literary criticism, single literary critic, or period in Russian literary history as reflected in literary criticism. Simultaneous or similar phenomena in literary criticism in West. May be repeated for credit with consent of instructor and graduate adviser. S/U or letter grading.

296. Seminar: History of Russian Culture. (4) Discussion, three hours. Reading and discussion on selected topics in history of Russian culture.

Serbian/Croatian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.
May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with 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
CM114. Teaching and Learning of Heritage Languages. (4) Same as Asian CM124 and Near Eastern Languages M124. Lecture. Consideration of issues relevant to heritage language (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profiles of HLLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLs) regarding teaching methods and materials and diagnostic testing approaches; 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 CM214. P/NP or letter grading.

188A. Introduction to Eurasia. (2) Lecture, 90 minutes. Experimental or temporary courses in East European and Eurasian studies, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188B. Languages of Eastern Europe and Eurasia. (2) Lecture or tutorial, 90 minutes. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members, introducing less commonly taught Slavic, East European or Eurasian language. May be repeated for credit with change in language or language level. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with 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. Senior Capstone Thesis in Slavic Languages and Literatures. (2) Seminar, three hours. Limited to senior departmental majors. Planning and completion of senior capstone thesis. Introduction to research methods and presentation of student target language for research required. Verbal and written presentations required. Letter grading.

191TB-191TC. Senior Capstone Thesis in Slavic Languages and Literatures. (2 to 4) Seminar, three hours. Course 191TA is enforced requisite to 191TB, which is enforced requisite to 191TC. Limited to senior departmental majors. Editing and completion of senior capstone thesis. Use of student target language for research required. Letter grading.

197. Individual Studies in Slavic Languages and Literatures. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
198A. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Limited to senior departmental honors program students. Development of research bibliography and survey of literature in field of Slavic, East European, and Eurasian languages and cultures. Topics chosen through consultation with faculty mentor. Students meet regularly with faculty advisor 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: course 198A. Limited to senior departmental honors program students. Preparation and writing of field of Slavic, East European, and Eurasian languages and cultures under direct supervision of faculty mentor. Topics chosen through consultation with faculty mentor. Students meet regularly with faculty advisor 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 graduate students for scholarly work by introducing them to resourses (departmental, intramural, and extramural), methodologies, and techniques for analysis of literary materials and cultural studies. Letter grading.


201. Introduction to Church Slavic. (4) Lecture, three hours. Required for MA (linguistics). Introduction to alphabet, phonology, and grammar; readings from Bible and other church Slavic texts (East Slavic recursion). S/U or letter grading.

202. Introduction to Comparative Slavic Linguistics. (4) Lecture, three hours. Requisite: course 201. Required for MA (linguistics). Introduction to comparative phonology and grammar of Slavic languages. CM214. Teaching and Learning of Heritage Languages and Eurasian (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 HLL and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLLs, particularly HL groups most represented among UCLA students; institutional strategies toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners. Lecture and supervised research and writing. Tutorial and guided independent study; 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 M229C.) Introduction to Slavic and East European bibliography for the humanities and social sciences. Topics to be determined by requirements and background of enrolled students. Topics include relevant library terminology 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, print and online corpuses; survey of online databases; compilation of bibliographies. S/U grading.

230A-230B-230C. Topics in Comparative Slavic Literature. (4-4-4) Lecture, three hours. Recommended preparation: upper-division courses in Czech, Polish, Russian, and Yugoslav 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 descriptive 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. May be repeated as apprentice part-time employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for course curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. 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.

569. 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

152. Ukrainian Literature. (4) Lecture, five hours. Course 151A is recommended preparation for 151B, 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.

101A-101B-101C. 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 Kotlyarevsky, Shevchenko, Franko, Uranka, 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 sequence 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 sequence 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 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
Andrew Apter, PhD (Anthropology, History)
Robin L.H. Derby, PhD (History)
Tamar Kremer-Sadlik, PhD (Anthropology)
Davide Panagia, PhD (Political Science)
Sarah Abreyava Stein, PhD (History)
James W. Stigler, PhD (Anthropology, Psychology)
Abel Valenzuela, Jr., PhD (Chicana/o and Central American Studies, Urban Planning)
Juliet A. Williams, PhD (Gender Studies)
Min Zhou, PhD (Asian American Studies, Sociology)

Overview

The Division of Social Sciences is home to leading researchers working to advance understanding of complex social problems. Students engage in research using collaborative methods through the Interdepartmental Program in 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 sociology, 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.

Graduate Major

Master of Social Science

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. Fist Lux Freshman Seminars. (1) Seminar: one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110A. Social Science in Context: Perspectives and Methods in Study of Culture and Society. (4) Lecture, three hours. Perspectives and methods for study of culture and society through combination of theoretical discussions and practical exercises. Students gain understanding of interaction of political, social, cultural, environmental, and time. Examination of relationships between language, culture, and society to gain insights into processes of social reproduction of identities, power relations, and inequality. Students are exposed to working parts of social research: ethics of studying people and communities, gathering and analyzing of data (e.g., observations, interviews, and surveys), and interpretation and presentation of findings. Students gain informed and responsible values and attitudes towards just society, intercultural understanding, informed and active citizenship, ethical research practices, and lifelong learning. Letter grading.

110B. Social Science in Context: Understanding New Zealand from Colonialism to Neoliberalism. (4) Lecture, eight hours (four weeks). Offered as part of summer UCLA Topical Program to New Zealand. Examination of life in Aotearoa, also known as New Zealand, Focus on historical events and social processes as well as axes of difference such as ethnicity and class and ways in which they have shaped and 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 to learn from the people and culture. Students gain greater insight into social and political relations and events elsewhere in the world, including U.S. Letter grading.

185. Academic Innovation in Industry. (1) Lecture, one hour (six weeks). Exploration of how to apply disciplinary knowledge to industry problems and technology trends. Students build skills to enable them to create novel ways of migation challenges, build network intelligence, and communication their ideas and expertise. Students also learn problem-solving techniques like lean startup approach. Uses case study approach to explore how industry scientists have connected with recent technology trends to produce impactful innovation. P/NP grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associated faculty member 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 wide array of disciplinary perspectives, research methods, and analytical approaches. Encouraged 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 issues in qualitative research in workshop format. Covers practical workings of qualitative research: gathering data through interviews, focus groups, observation, questionnaires, and archival research; strategies for recording, coding, and analyzing qualitative data; and evaluating and presenting qualitative research. Prepares students to undertaking 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 data analysis and statistics, focusing on application of statistical methods in social problems 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 qualitative 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 appropriate software, to interpret results, and to make critical evaluations of quantitative social science research. Letter grading.

404. Data Analysis. (4) Lecture, three hours. Workshops in which students develop research and analysis skills related to establishing and executing data analysis plan. Students engage in intensive peer-review process, working collaboratively in small groups. Students receive detailed feedback from instructor.
teaching assistants, and faculty 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, Part 1. (4) Lecture, three hours; fieldwork, two hours. Study of principles, ethics, and methods of community-based research (CBR), and place and purpose of scholarly inquiry. Working in teams, students conduct small-scale research projects in collaboration with local community organizations. Teams work closely with instructors and organization agents on all aspects of research design, execution, and data analysis. Students apply quantitative and qualitative research methods skills acquired in courses 401 and 402 to research projects. Attendance at research site meetings, team meetings, and weekly on-campus class meetings required. Each team produces and submits final research report to community partner by end of quarter. Letter grading.

430A. Community-Based Research, Part 1, (4) Lecture, three hours; fieldwork, two hours. Part 1 of 2-part series. Students learn principles, ethics, and methods of community-based research (CBR), and place and purpose of scholarly inquiry. Working in teams, students conduct small-scale research projects in collaboration with local community organizations. Research projects are selected in consultation with instructor and community organization to be completed within quarter. Teams work closely with instructors and organization agents on all aspects of research. Teams develop research design, data collection methods and protocols, recruit participants, and engage in data collection. Students apply quantitative and qualitative research methods skills acquired in courses 401 and 402 to their research projects. Students are expected to attend meetings at research sites, team meetings, and weekly on-campus class meetings. 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 inferences, and conduct data analysis (including statistical analyses of quantitative data and coding of qualitative data) and interpretation of results. Work is divided fairly among team members with each team member contributing based on their skills and talents. Teams work closely with instructors and organization agents on all aspects of research and write-up. Students are expected to attend all meetings at research sites, team meetings, and weekly class meetings on campus. Each team produces and submits final research report to instructor and community partner. Letter grading.

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. Focus on practical aspects of voting rights laws. Students learn in greater detail legal theory relevant to bringing successful voting rights challenges, and how to assemble and present social science evidence. Students read case law on prior Voting Rights Act decisions, review accompanying expert reports, and work in teams on projects related to voting rights. S/U or letter grading.

M460B. Voting Rights Policy and Law II. (4) (Same as Public Policy M296B.) Clinic, three hours. Requires: 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. 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 projects related to voting rights. S/U or letter grading.

**SOCIAL THOUGHT**

**Interdisciplinary Minor College of Letters and Science**

A316 Murphy Hall

Los Angeles, CA 90095-1430

Social Thought

310-267-5430

Minor Adviser

Jeffrey J. Guhin, PhD, Chair

Faculty Committee

Cécile Guédon, PhD (European Languages and Transcultural Studies)

Jeffrey J. Guhin, PhD (Sociology)

Barbara Herman, MA, PhD (Law, Philosophy)

Jeffrey Prager, PhD (Sociology)

Stephanie B. Santanta, PhD (Comparative Literature)

**Overview**

The Social Thought minor helps students to think better: to think more deeply and more critically, drawing on the intellectual resources of major thinkers from around the world. Emphasizing social and political thought from the 17th century to today, students read widely to develop an original argument about social life, culminating in a thesis project that is an original contribution to scholarship.

The minor builds on lower-division introductory exposure to the history of modern ideas as embodied in a number of key texts by significant thinkers such as Darwin, Descartes, de Beauvoir, Du Bois, Freud, Hobbes, Locke, Marx, Mill, Nietzsche, Rousseau, Said, Smith, Weber, and Wollstonecraft. Building upon these foundations, students are encouraged to read widely and make connections to intellectuals who are not traditionally considered part of the canon of North Atlantic thought, especially thinkers from the Global South, indigenous communities, and historically marginalized groups.

Insisting that the best way to develop your thoughts is to write about them, the minor culminates in a two-term capstone project, the thesis of at least 5,000 words, under the direction of a UCLA faculty mentor. Students from all majors are encouraged to join the Social Thought minor. The Social Thought minor is about asking big questions about big ideas, and writing answers to those questions.

**Undergraduate Minor**

**Social Thought Minor**

**Admission**

The Social Thought minor is limited to students who formally apply and are admitted. To apply, students must meet with the academic adviser, and submit an application, a letter of recommendation from a faculty mentor, and an application essay to the College Academic Counseling Office, A316 Murphy Hall. For more information, see the minor website.

To enter the minor, students must have an overall grade-point average of 2.0 or better and apply for admission only after successfully completing the following lower-division requirements: Clusters 21A and 21B, or two courses from German 56, Honors Collegium 20, 21W, 55, 57, 83W, Philosophy 6, Political Science 10, Sociology 10.

**The Minor**


**Required Research Colloquia and Senior Thesis** (12 units): Students must also complete Social Thought 190A and 199A in one term and courses 190B and 199B in the following term.

**Policies**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor.
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 lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190A-190B. Research Colloquia in Social Thought I, II. (2–2) Seminar, two hours. Corequisite for course 190A: course 190A; for 190B: course 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. Limited to one supervising faculty member. Course 190A may be repeated for credit. P/NP grading.

190A-190B. Directed Research or Senior Thesis in Social Thought I, II. (4–4) Tutorial, to be arranged. Corequisite for course 190A: course 190A; for 190B: course 190B. 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.

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
Ian W. Holloway, MSW, MPH, PhD
Mark S. Kaplan, DrPH
Ananya 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, Jr., PhD
Diane S. de Anda, 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

Lené F. Levy-Storms, MPH, PhD
Carlos E. Santos, PhD
Laura Wray-Lake, PhD

Assistant Professors

Leyla Karimi, 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
David C. Turner III, 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
Jorja J. Leap, PhD
Woo K. (Toby) Hur, MSW
Tranishia L. James, LCSW
Michael L. O’Hara, LCSW
Hector R. Palencia, LCSW
Michelle Tailey, 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

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.

Faculty Roster

Professors

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Beyond national opportunities in the profession of social work, there is increasing demand for qualified and experienced social workers to serve in the international field, where many social service programs are conducted under the auspices of the United Nations, the U.S. government, and national sectarian organizations. Graduates of the doctoral program generally secure appointments at major universities or research centers.

The challenge to the department, the profession, and those who join us as students is to prepare to forge the paths, build the bridges, and shape the future to ensure that all individuals, families, and communities enjoy better education, better health care, better job training, and better economic futures.

Graduate Majors

Master of Social Welfare

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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.
- Master of Social Welfare/Asian American Studies MA
- Master of Social Welfare/Juris Doctor
- Master of Social Welfare/Master of Public Health
- Master of Social Welfare/Master of Public Policy

Social Welfare PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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. 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.

99. Student Research Program. (1 to 2) Lecture, four hours. Limited to juniors/seniors. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100A. Introduction to Social Welfare: Policies and Programs. (4) Lecture, four hours. Origin and development of major U.S. social welfare programs and policies guiding them, with emphasis on analysis of policy development/issues related to provision of social welfare services. Study of historical and current responses of profession to major social problems. P/NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Lecture, four hours. Requisite: course 100A. Review of existing policy regarding major social issues in field of social welfare. Examination of discrepancy between need and capacity of social agencies to address need. Exploration of differential impact of policy on various populations. P/NP or letter grading.

101. Social Welfare in Multicultural Society. (4) Lecture, four hours. Social policy viewed from perspective of various cultural groups. Students to become aware of their own cultural perspective and learn to recognize similarities and differences in values, perspectives, and beliefs across cultural groups. P/NP or letter grading.


103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Lecture, four hours. Requisites: courses 100A, 100B, 101. Description and demonstration of basic skills employed in direct social work practice. Students practice these skills in written, role-play, small group, and video or audio exercises. P/NP or letter grading.

104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana/o and Central American Studies M108B, Gender Studies M104C, Gerontology M104C, and Public Affairs M131.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

104D. Public Policy and Aging. (4) (Same as Gerontology M104E.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of policy processes and analysis of current and past policy issues affecting elderly. P/NP or letter grading.

104E. Social Aspects of Aging. (4) (Same as Gerontology M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around key aspect of social gerontology: P/NP or letter grading.

105. Social Welfare in Modern America: Historical Perspectives. (4) Lecture, three hours; outside study, nine hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed by governments to ameliorate these problems have typically been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. Other 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 state. P/NP or 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 (module) from a number of field settings, P/NP or letter grading.

107. Field Practicum: Social Welfare. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 106. In field practicum students are placed in a specific 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.

108. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Gerontology M108B and Public Affairs M130.) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that are based on variety of recent research frontiers. Use of conceptual frameworks to increase relevance of aging studies; allowance of critical thinking—biopsychosocial approach that is based on recognition that aging is inherently interdisciplinary phenomenon, and life course perspective that is distinguishing feature of recent research frontiers. Discussion of theoretical models and concepts that are relevant to understanding human aging and its implications in global north and global south. Letter grading.

M130A-130B. Community Research and Services Seminars. (4-4) Seminar, three hours; service learning, four hours. Course 130A is required to 130B. Limited to juniors/seniors. History and roles of social welfare policy within government, organizations, and communities. Reflections about service-learning site experiences, with application of issues related to lecture and seminar readings. Students are assigned to two-term tutoring/mentoring site where they apply tutoring techniques as they assist middle school students in impoverished areas of Los Angeles County. In Progress (130A) and P/NP or letter (130B) 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 households. 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 Reconciliation Act (PRWORA); and critical appraisal of recently enacted state welfare reform policies. Relationship between research knowledge about poverty and current policies, and effects of gender, ethnicity, 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. Theoretical and practical foundation for understanding and shaping democratic change in communities and for determining community needs. Use of systems theory as organizing framework. Community-level interventions are compared with community's social ecology, culture, economic system, political system, ethnic composition, and class structure. Agencies often seek to define community needs and develop interventions 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 community 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, three hours. Designed for juniors/seniors. Perspectives on 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. P/NP or letter grading.

M142XP. Intergenerational Communication across Lifespan. (4) (Formerly numbered M142SL.) (Same as Gerontology M142XP and Public Affairs M129XP.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you talk about in conversation? How do you talk to your grandparents? Does your family talk well to one another as group? How do you communicate well with boss who is 30 years older than you? In a room made up of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psycho-sociological, 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. Major public programs, notably Medicare and Medicaid, and their relationship to issues of access and cost for diverse vulnerable populations. Various public and private approaches to health care reform and the roles and perspectives 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 related to patterns of drug use and related harms among youth 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 information. P/NP or letter grading.

164. HIV Prevention in U.S. and Developing World. (4) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead such lives. Who are people with disabilities in contemporary America? How has U.S. responded to various needs and aspirations of people with disabilities, young and old? What demands have been made over time by disability advocates? How has this been addressed? What are the needs of various disability populations? What do we know about extent to which public policies and programs are responsive to people in need? How do demography and economic and social context influence policy? How do social workers advocate for various disability populations? How do they engage with disability rights advocates in shaping public policy?

189SA. 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.

189SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 189SA or 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.

189SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 189SB. 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.

189D. 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 direction of 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 juniors in College Honors and departmental honors programs. 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.

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.

192A. Internship Seminars: Social Welfare. (2) Seminar, one hour; outside study, two hours. Corequisite: course 191. Preparation for and supervision of individual student in research or field experience, with topics and activities restricted 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 of specific setting. May be repeated for credit. P/NP or letter grading.

192B. Community Internships in Social Welfare. (2) Tutorial, four hours. Corequisite: course 191. Not open to freshmen. Introductory course in community-based child health and advocacy. Students learn about community resources for children and families through service learning experience and work with pediatric patients and families in UCLA pediatric unit. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

199. Directed Research in Social Welfare. (2 or 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

202A-202B. Dynamics of Human Behavior. (4–4) Lecture, two and one half hours. Requisites: courses 201A, 201B. Deviations and pathologies or stresses in physical, emotional, and social areas of human functioning as they relate to role and function of social workers. S/U or letter grading.

202A-202B-203C. Integrative Seminars. (4–4–4) Seminar, two and one half hours. Integrative courses that bring together theory and practice of social work in variety of topic areas relevant to profession. Includes identification of problem areas and popularization of reading, requiring further examination. S/U or letter grading.

203B. Social Justice in World Communities. (4) Same as Public Policy M291C and Urban Planning M220A. Seminar, three hours; outside study, nine hours. Advanced seminar across public policy, social welfare, and urban planning. May be repeated for credit. S/U or letter grading.

204A. Homelessness: Housing and Social Work Practice. (4) Same as Public Policy M210B. Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness: who homeless are, what social services and housing are available, existing and proposed programs—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. Cognitive and conducting evidence-supported practices based on differential assessment of people and their situations, with particular focus on following intervention approaches: case management, motivational interviewing, crisis intervention, cognitive, task-centered, and solution-focused therapies, as well as interventions appropriate for family functioning, small group processes, and environmental modification (advocacy and community organization). Continued evaluation of outcomes. Letter grading.

210C. Foundations of Social Work Practice III. (4) Lecture, two and one half hours. Corequisite: course 401C. Core concepts of social work practice in organizational, community, and policy settings. Exploration of leadership style and development of personalized group work skills. Role of macro practice in agency-based social work in advancing strategies of organizational and social change. Interface and interaction among policy decisions, community needs, and program 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 injustice. Letter grading.


211B. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare II. (4) Lecture, two and one half hours. Conceived study of racism, oppression, and social functioning covering various dimensions of race and other forms of oppression in U.S. and other societies today. Forces contributing to initiation and maintenance of institutional oppression and inequality across social categories such as race, ethnicity, gender, sexuality, religion, ability, and age. Letter grading.

212. Human Behavior in Social Environment: Critical Self-Awareness and Intergroup Dialogue. (2) Lecture, 75 minutes. Introduction to critical self-awareness and intergroup dialogue. Exploration and appreciation of worldviews and experiences of colleagues. Through self-awareness students learn to engage with diversity and difference in social work prac-
213A. Social Welfare Research Methods. (4) Lecture, two and one half hours. Introduction to various research methodologies, including experimental and quasi-experimental, surveys, and analytical evaluation methods. Emphasis on data collection and research design. Letter grading.

229A. Craft of Social Welfare Scholarship I. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 229B. Limited to PhD students. Continued narrowing of student focus on one social welfare research problem, moving from understanding of existing literature to identification of one or more critical gaps in knowledge to explore. Discussion of different methods of summarizing research literatures, identifying seminal studies, and interpreting contradictory findings. Regular practice with research literature to encourage students to review their work with their faculty advisors and/or other mentors with expertise in their problem areas. Letter grading.

229B. Craft of Social Welfare Scholarship II. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 229A. Limited to PhD students. Continued narrowing of student focus on one social welfare research problem, moving from understanding of existing literature to identification of one or more critical gaps in knowledge to explore. Discussion of different methods of summarizing research literatures, identifying seminal studies, and interpreting contradictory findings. Regular practice with research literature to encourage students to review their work with their faculty advisors and/or other mentors with expertise in their problem areas. Letter grading.

231K. Advanced Social Welfare Practice: Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theoretical models related directly to practice with diverse population of older adults. Presentation of comprehensive models for multidisciplinary assessment and intervention. How to engage in collaborative treatment planning across range of late-life problems and address impediments to intervention process. Theoretical understanding of how psychoactive and psychotropic medications are used by older adults and the role of social work practitioners in understanding treatment responses for older adults. S/U or letter grading.

231Q. Advanced Social Welfare Practice: Psychotherapeutic Interventions-Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theoretical models related directly to practice with diverse population of older adults. Presentation of comprehensive models for multidisciplinary assessment and intervention. How to engage in collaborative treatment planning across range of late-life problems and address impediments to intervention process. Theoretical understanding of how psychoactive and psychotropic medications are used by older adults and the role of social work practitioners in understanding treatment responses for older adults. S/U or letter grading.

231R. Advanced Social Welfare Practice: Psycho-social Interventions-Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theoretical models related directly to practice with diverse population of older adults. Presentation of comprehensive models for multidisciplinary assessment and intervention. How to engage in collaborative treatment planning across range of late-life problems and address impediments to intervention process. Theoretical understanding of how psychoactive and psychotropic medications are used by older adults and the role of social work practitioners in understanding treatment responses for older adults. S/U or letter grading.
main classes of drugs, and highlighting of current crisis of confidence in field. Brief summaries of basic neurobiological actions of drugs. Examination of previous and emerging roles of social workers around medications, as well as legal and ethical dictates of medicines, as well as legal and ethical dictates of

beginning social workers: reviewing relevant literature

relevant literature critically, taking psychiatric medication histories, understanding clients’ subjective views and meanings of medications, and monitoring medications to reduce harms. Letter grading.

231S. Child and Adolescent Trauma. (4) Lecture, two and one half hours. Introduction to common concepts (general theory and foundational knowledge), which inform evidence-based assessment and intervention with traumatized children and adolescents. Strength-based practice highlighted along with focus on identification of protective and promotive factors that foster resiliency and post-traumatic growth. Trauma is broadly defined, and includes children and adolescents exposed to traumatic events including but not limited to natural disasters, war, abuse, neglect, medical trauma, and witnessing interpersonal crimes (e.g. domestic violence) and other traumatic events. Highlights role of development, culture, and empirical evidence in 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. Core course for Health and Mental Health Across the Lifespan area of concentration. Introduction to social determinants of health, one of the overarching integrative and evidence-based frameworks accounting for upstream influences on health and mental health of populations. Review of different aspects of this approach around the well-being of individuals and from efforts to prevent health and mental health problems and to promote positive health and mental health. Introduction to leading psychosocial theories that underlie social work practice in health promotion and disease prevention. Letter grading.

M241E. Nonprofit Organizations and Philanthropy: Management and Policy. (4) (Same as Public Policy M228 and Urban Planning M228B.) Lecture, three hours; outside study, nine hours. Corequisite: preparation of nonprofit organizations—as service providers, vehicles of humanitarian assistance, policy advocates, social entrepreneurs, innovators, and as instruments of social change—have methods of organization set of institutions closer to center of social welfare, urban planning and public policy agendas. Introduction of conceptual background, examination of theories and concepts of institutional behavior, and management models and policy frameworks. Lectures, seminar-type discussion, in-class presentations, and guest presentations. Letter grading.

241G. Advanced Social Welfare Practice: Community Mapping. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to familiarize students with use of geographic data in community practice. Development of skill base for community practice that provides students with tools necessary to organize and plan effectively for political, economic, and social justice in communities. How to use geographic information systems (GIS) to inform community practice. S/U or letter grading.

241H. Advanced Social Welfare Practice: Institutional Governance and Human Service Management. (4) Two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Conceptual framework and analytic tools provided to understand organizational features of human services. Human service organizations work on people to improve, sustain, or prevent decline of well-being. Because of their function these organizations have special attributes that distinguish them from other organizations, such as their focus on social problems.

Overview of the attributes theoretical perspective to study them, and analysis of factors that shape nature of work they do. Explanation of determinants of relations between workers and clients by looking at such variables as policy environment, values and mission, internal structure, service technology, resource structure, organizational responses to staff and client diversity, and power relations between workers and clients. S/U or letter grading.

241I. Advanced Social Welfare Practice: Grant Writing. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Process of grant writing, with emphasis on learning necessary skills to construct functional grant proposals. Assessment of problem-solving knowledge to development of human service grants. Various steps in writing grant proposals and opportunity to design/ prepare grant proposals. S/U or letter grading.

241J. Advanced Social Welfare Practice: Community Practice. (4) Lecture, two and one half hours, outside study, nine hours. Corequisite: required social work practicum. Designed to deepen student knowledge of community practice methods and empirical base that supports these methods in field of social welfare. Theory, practice, and research methods related to major community practice approaches in context of evidence-based philosophies and processes. Development of skills to address community problems using best available data by applying course concepts to student projects. S/U or letter grading.

241K. Advanced Social Welfare Practice: Policy Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Methods of social policy practice and policy advocacy as problem-solving process. Analysis of consequences of 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. Introduction to advanced study of child and family well-being and function. Conveys seminal knowledge of key settings—and experiences within them—that impact children and families. 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 child development. Emphasis on prevention efforts to assure healthy development for all youth, stop family violence, and increase social connections. Prepares students for professional roles as social workers who are prepared for and equipped to care for, and empower, children and families around relevant social and economic justice issues. Letter grading.

M249A. Introduction to Lukin PhD Research. (4) (Formerly numbered 249A.) (Same as Urban Planning M249A.) Lecture, two hours. Required of first-year PhD students. Introduction to design and execution of public affairs research; exploration of subfields of public affairs scholarship and approaches to research on topics in social welfare and urban planning. Preparation and filing of PhD program study. Letter grading.

M249B. Introduction to Qualitative Research. (4) (Formerly numbered 249B.) (Same as Urban Planning M249B.) Lecture, two hours; outside study, nine hours. Corequisite: course M249A. Required in first or second year of PhD program. Introduction to philosophy, theory, logic, design, and practice of qualitative research by studying its varied methodologies. Letter grading.

M249C. Logic of Inference and Causation. (4) (Formerly numbered 249C.) (Same as Urban Planning M249C.) Seminar, three hours. Required in first or second year of PhD program. Development of researchable hypotheses and accompanying research design strategies, understanding of causal inference, review of critiques of traditional methods and of alternative approaches to scholarship. Letter grading.

251A. Advanced Social Welfare Practice: Domestic and Sexual Violence. (4) Lecture, two and one half hours. Required of second-year MSW students in macro and clinical social work. One of most pervasive aspect of women’s existence has been violence against them as consequence of their gender. Factual information and critical examination of theories, research, and clinical and policy practices in social work regarding various forms of violence against women and girls in their homes, workplaces, and communities provided. Exploration of macro- and micro-level interventions in social work practice to address impact of violence on communities and individuals. Letter grading.

251B. Advanced Social Welfare Practice: Military Social Work. (4) Lecture, two and one half hours. Designed for second-year MSW students. Foundational understanding of contemporary issues being experienced by these military and veteran families, following longest wars in U.S. history. Exploration of different modes of military service and identities (i.e., active duty, National Guard, Reserve, and veterans). History of military social work and their families. Examination of family life cycles and military policies and approach to families. Use of trauma-informed practice to focus on working with veteran community of all camps, as well as current military members and their families. Discussion of military and veteran policies, programs, and practices in context of broader social policy and theory for military social work practice at direct service and policy practice levels. Vicarious trauma, care for caregivers, and provider self-care also addressed. S/U or letter grading.


M258. Applied Research Design: Dissertation and Thesis Proposal. (4) (Formerly numbered 258.) (Same as Urban Planning M258.) 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/variables, framing specific research questions/hypotheses, and developing design for conducting research. May be repeated for credit. S/U or letter grading.

259. Variable Topics in Statistics in Social Sciences. (4) Lecture, three hours; outside study, four hours. Corequisite: required of first-year PhD students. Design for in-depth understanding of particular topics in area of applied statistics/measurement. Seminar study 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 lead to literature review of literature and determine understanding of interest area. Working in groups of three to four, development of proposal for research capstone project that includes literature review and outlines plans for collecting data or using existing data to address applied problem. Culminates in completion of full proposal for research capstone project and articulated work plan for team members. S/U grading.

260B. Research Capstone II: Data Gathering, Analysis, and Interpretation. (4) Lecture, two hours; outside study, four hours. Supports students in implementing their research capstone, including data gathering and preliminary analysis. Class meetings may be for small or large groups to assist with trouble shooting or to teach specialized research skills. Culminates in presentation of project methods and initial results. In Progress grading (credit to be given only on completion of course 250C).

270. Being a Leader and Effective Exercise of Leadership: Ontological/Phenomenological Model. (6) Lecture, five hours; outside study five hours. Students develop unique context for leadership which gives them a meaningful exercise of leadership as their natural self-expression, in any situation, regardless of whether they hold title/position. Students have opportunity to become aware of and deal with personal obstacles (ontological constraints) to exercise of leadership. Using leadership project and diverse study group as laboratory, students practice and develop capacities to operate with integrity, uncover ontological constraints, reflect and write authentically, and speak to those they are leading in way that promotes shared vision and inspires others to contribute. S/U or letter grading.


284A-284B-284C. Doctoral Research Apprenticeship. (2 to 4 each) Tutorial, to be arranged. 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 procedures in research. Students participate in various activities depending on specific research projects 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 conference and journal submissions. Students work closely with their faculty mentor and other graduate students. Introduction to research process and skills necessary for conducting research in social sciences. In Progress (284A, 284B, and S/U or letter 284C) grading.

285A-285B-285C. Research in Social Welfare. (4–4–4) Discussion, three hours. Review of areas of research in social welfare, in which they intend to work. Activities include research tasks such as conducting literature reviews, developing research questions, collecting data, cleaning and preparing data, analysis and interpretation, and writing up research findings for conferences and journal submissions. Students work closely with their faculty mentor and other graduate students. Introduction to research process and skills necessary for conducting research in social sciences. In Progress (285A, 285B, and S/U or letter 285C) grading.


285E. Research in Gerontology. (4) Lecture, three hours. Overview of research in aging. Development of research questions, selecting appropriate theoretical frameworks, conducting literature reviews, selecting appropriate research design, identifying sampling methods, Special considerations in aging research, including sampling, questionnaire design, and recruitment issues. Letter grading.

285F. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discussions of readings about range of research from field of health services. Identification of research design issues, sample size, instruments, analysis, strengths and limitations of current approaches to health services research, consideration of alternative roles for social work practitioners in arena of health services. Letter grading.


286H. Program Evaluation Research. (4) Lecture, three hours. Study 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 designs, 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. Introduction to understanding research methods. Content includes theoretical and conceptual approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286B. Advanced Research Methods. (4) Seminar, three hours. Advanced concepts underlying research methods. Continuing study of 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 students and carried out under faculty supervision, enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

290A-290B-290C. Seminars: Social Work. (4–4–4) Seminar, three hours; fieldwork, nine hours. Series of seminars dealing with trends in social work and social welfare, with focus on current social problems affecting individuals, groups, and communities and new patterns of interdisciplinary collaboration and demonstration 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 focused on gangs, prisons, organization, reformation, 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 relation to punishment, incarceration, death penalty, and development and endurance of prison gangs. Analysis of criminal justice system history, future directions, and capacity of social welfare programs to address needs of marginalized populations. Letter grading.

290E. Lesbian, Gay, Bisexual, and Transgender Health, Law, and Public Policy. (4) Lecture two and one half hours. Examination of LGBT-identified communities throughout U.S. Identification of health disparities that exist within broad conception of LGBT-identified communities, including disparities among most marginalized and least understood marginalized sections of multiple identities. Use of law and policy by situating goal of achieving health equity for LGBT communities in current political climate. Offers opportunity for evaluation and work with LGBT people by being 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 technical, social, and policy 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 applied to explain firearm violence, methods used in scientific study of firearm violence, and important research findings about correlates, patterns, processes, and trends related to firearm violence. S/U or letter grading.

290G. Psychotropic Drugs and Medications: Harm Reduction Policies. (4) Lecture, two and one half hours. Philosophy and policy applications of harm reduction approach to legal (including prescription) and illegal psychoactive drug use, including opioids, and elsewhere. Visions and obstacles for future management of psychoactive drugs such as opioids, stimulants, psychedelics, benzodiazepines, according to harm reduction principles. Implications for social work practice across lifespan. Letter grading.

M290I. Children with Special Healthcare Needs: Systems Perspective. (4) (Same as Community Health Services M241) 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 and their families. Letter grading.

M290J. 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 they are provided. S/U or letter grading.

M290L. Poverty, Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Urban Planning M246) Lecture, three hours; fieldwork, one hour. Examination of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants and their families. Letter grading.

M290M. Health Policy. (4) (Same as Public Policy M215) Lecture, three hours. Examination of policy and research issues concerning poverty and social welfare policy directed toward poor in U.S. S/U or 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 community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M290P. Aging Policy, Elderly and Families. (4) (Same as Asian American Studies M290P) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical models and concepts of policy processes and aging policy. Analysis of social policy impacts of contemporary issues in healthcare financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

M290Q. Public Policy for Children and Youth. (4) (Same as Public Policy M217) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M290R. Aging Policy, Elderly and Families. (Same as Asian American Studies M290R) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical models and concepts of policy processes and aging policy. Analysis of social policy impacts of contemporary issues in healthcare financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.
SOCIETY AND GENETICS, INSTITUTE FOR

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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 synthetically around the sorts of knowledge and skills required to investigate and address such problems rather than by building up from the stepwise sequences of traditional disciplines. Preparation for the majors is centered on three areas of study that together prepare students to solve problems at the intersection of biology and society: genes and gene expression; human evolutionary biology; and society, diversity, and identity. The majors provide an important integrative space where different ways of knowing in the human and life sciences are explored, interrelated, and applied. Core and capstone courses emphasize problem-based learning about pressing issues that inextricably link society, culture, and biology, such as medical privacy rights, gene patents, regulation of stem cell research, and questions of race, gender, and identity.

Programmatically, the majors consist of required elements that develop critical thinking skills, knowledge, and excellence in written and spoken communication; 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 internships. The mission is to educate students who become leaders in diverse areas such as law, medicine, humanities,
Undergraduate Majors

Human Biology and Society

BA

Learning Outcomes

The Human Biology and Society major has the following learning outcomes:

- Demonstrated strong foundation of knowledge in social science and evolutionary biology and genetics
- Skills to critically analyze and evaluate qualitative and quantitative data and social theoretical concepts
- Work well in multidisciplinary teams
- Skills at communicating across disciplines and leveraging knowledge from multiple perspectives
- Demonstrated proficiency in at least one area of concentration at the interface between biology and society
- Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them

Entry to the Major

Admission

Admission to the Human Biology and Society BA major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are considered during fall quarter of the junior year only as space in the program permits. No applications are considered after fall quarter of the junior year.

Pre-major standing is not required to apply for the major. A copy of the major application is available on the department major web page.

Pre-major

Incoming first years may be admitted as pre-majors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counsel in 3360 Life Sciences to request pre-major standing.

Transfer Students

Transfer applicants to the Human Biology and Society BA major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one year of general biology (the equivalent of Life Sciences 7A, 7B, and 7C), introductory chemistry, one statistics course, one anthropology human evolution course, and four introductory social sciences or history courses. Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University.

Refer to the UCLA transfer admission guidelines for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: One core course from Society and Genetics 5, M71A, or M72A; and Anthropology 1, Chemistry and Biochemistry 14A or 14AE, Life Sciences 7A, 7B, 7C, Statistics 10 or 13, and four social theory courses (minimum of 16 units) from American African Studies 1, M5, 6, American Indian Studies M10, Anthropology 3, Asian American Studies 10 or 10W, 20 or 20W, 40 or 40W, 50 or 50W, Chicana/o and Central American Studies 10A, 10B, Clusters M1A through 80CW, English M30, Environment M30, Gender Studies 10, Geography 3, History 3A, 3B, 3C, 3D, 12A, 12B, 12C, Honors Collegium 70A, Labor Studies M1A, M1B, M1CW, 10, Molecular, Cell, and Developmental Biology 50, 60, Philosophy 3, 4, 6, 7, 8, 22 or 22W, Political Science 10, 40, Public Affairs 10, 20, 30, 80, Sociology and Genetics 85, Sociology 1, or M5.

The Major


Students may additionally choose course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, psychology, and psychosocial and mental health.

Optional Subfocus Areas

The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences.

Students may optionally select any subfocus area as part of the required elective courses for the major.

Cell Development: Molecular, Cell, and Developmental Biology 138, 165A, 168

Ecology and Evolutionary Biology: Three courses from Anthropology 124P, 124Q, 126Q, 128P, Ecology and Evolutionary Biology 100, 116, 120, 121, C126, 129, 130, C135, 175, 176

Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, C185A, and one course from 103AL, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics C122, or 158

Physiology: Physiological Science 111A, 111B, and one course from 147, 149, or 177

Population Genetics: Two courses from Ecology and Evolutionary Biology C135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144
Psychology and Mental Health: Three courses from Psychology M107, 112A, 112B, 115, 127A, 129C

Honors Program
To receive departmental honors, students must take each course in the major for a letter grade and complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest departmental honors, students must complete a research project and receive a grade of A or better in Society and Genetics 108, 197, or 199.

Policies
Preparation for the Major
Each course must be taken for a letter grade, and students must complete all pre-major courses with a cumulative minimum grade-point average of 2.9.

The Major
Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.0.

Human Biology and Society
BS Learning Outcomes
The Human Biology and Society major has the following learning outcomes:
- Demonstrated strong foundation of knowledge in social science and evolutionary biology and genetics
- Skills to critically analyze and evaluate qualitative and quantitative data and social biological theories
- Formulation of effective and convincing written and oral arguments that integrate biological and social evidence
- Demonstrated broad comprehension of mathematical, physical, and life sciences as preparation for medical school
- Work well in multidisciplinary teams
- Skills at communicating across disciplines and leveraging knowledge from multiple perspectives
- Demonstrated proficiency in at least one area of concentration at the interface between biology and society
- Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them

Entry to the Major
Admission
Admission to the Human Biology and Society BS major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are considered during fall quarter of the junior year only as space in the program permits. No applications are considered after fall quarter of the junior year.

Pre-major standing is not required to apply for the major. A copy of the major application is available on the department major web page.

Pre-major
Incoming first years may be admitted as pre-majors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 3360 Life Sciences to request pre-major standing.

Transfer Students
Transfer applicants to the Human Biology and Society 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.

Requirements
Preparation for the Major
Required: One core course from Society and Genetics 5, M71A, or M72A; Anthropology 1; Chemistry and Biochemistry 14A or 14AE, 14B or 14BE, 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 or 31AL, 31B, 32A, and Statistics 10 or 13; Physics 1A, 1B, 1C, 4A, 4BL (or 5A, 5B, 5C); and two social theory courses (minimum 8 units) selected from African American Studies M5, American Indian Studies M10, Anthropology 3, Asian American Studies 20 or 20W, Chicana/o and Central American Studies 10A, 10B, Clusters M1A, through 80CW, Gender Studies 10, Geography 3, History 3C, Molecular, Cell, and Developmental Biology 50, 60, Philosophy 4, 6, 8, 22 or 22W, Public Affairs 10, Society and Genetics BS, Sociology 1, or M5.

The Major

Students may additionally choose course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, psychology, and psychopathology.

Optional Subfocus Areas
The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences.

Students may optionally select any subfocus area as part of the required elective courses for the major.

Cell Development: Molecular, Cell, and Developmental Biology 138, 165A, 168
Ecology and Evolutionary Biology: Three courses from Anthropology 124P, 124S, 126Q, 128P, Ecology and Evolutionary Biology 100, 116, 120, 121, C126, 129, 130, C135, 175, 176
Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, C185A, and one course from 103AL, 106, 107, 158, or 168
Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics C122, or 158
Physiology: Physiological Science 111A, 111B, and one course from 147, 149, or 177
Population Genetics: Two courses from Ecology and Evolutionary Biology C135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144
Psychology and Mental Health: Three courses from Psychology M107, 112A, 112B, 115, 127A, 129C

Honors Program
To receive departmental honors, students must take each course in the major for a letter grade and complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest departmental honors, students must complete a research project and receive a grade of A or better in Society and Genetics 108, 197, or 199.

Policies
Preparation for the Major
Each course must be taken for a letter grade, and students must complete all pre-major courses with a cumulative minimum grade-point average of 2.5.

The Major
Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.0.

Undergraduate Minor
Society and Genetics Minor Admission
Admission to the Society and Genetics minor is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Applicants must be in their junior year and have an overall grade-point average of 2.5 or better. Only a limited number of students are admitted each year. Applicants are not automatically 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 consulting with the undergraduate counselor in 3360 Life Sciences.

The Minor
Required Upper-Division Courses (30 to 34 units): Society and Genetics 101 (or, if Life Sciences 107 has been completed, one course from the approved list of electives), 102, 191S, and at least four additional upper-division elective courses (minimum 16 units) from the approved list.


Policies
Students may petition to have a course not on the approved list applied toward the four-course elective requirement. Contact the undergraduate counselor in 3360 Life Sciences.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade of C– or better. Successful completion of the minor is indicated on the transcript and diploma.

Society and Genetics Lower-Division Courses
5. Integrative Approaches to Human Biology and Society. (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 bioethics and public science policy, evolutionary biology, culture, and behavior, historical and social studies of life sciences, medical genetics and public health, and population genetics and history, and central thematic issues shared across concentrations, such as commercialization of life and public understanding of science. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in the course and stimulating many paths of discovery at UCLA. P/NP grading.

M71A-M71B-M71CW. Biotechnology and Society. (6-6-6) (Same as Communication 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. Exploration of methods, applications, and implications of biotechnology 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, biowarfare, and biodefense, sex and biotechnology. Satisfies Writing II requirement.

M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6-6-6) (Same as Communication 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, biology, medicine, and sociology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex and 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 II 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 disease. 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, urban/rural development) 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 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 within 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. Genetic Concepts for Human Sciences. (5) Lecture, three hours; discussion, one hour. Not 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 notions of 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 and communicated to individuals and of place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify specific individuals, ownership and commodification of
genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Exposure to medical genetics cases. Discussion of role of whole genome sequencing, personalized medicine, Human Genome Project influence on medicine and on our concepts of self and identity. Letter grading.

105A. Ways of Knowing in Life and Human Sciences. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course S or M71A or M72A. Course 105A is not requisite to 105B. Introduction to study of epistemology to train students to recognize different ways of knowing. In life and human sciences, instruments and methods are use to study, measure, and experiment. Exploration of how they are manifest in technologies that cut across disciplines to help students evaluate explanatory models, standards of proof, and qualitative versus quantitative studies. Explorations may include DNA sequencing, tissue cultures, bioinformatics, statistics, photography and cinema, database. 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. DNA sequences, bioinformatics, statistics, and databases. DNA sequencing and technical advances in mapping and staging contemporary controversies at intersections of human biology, genetics, and society.

105B. Problems of Identity at Biology/Society Interface. (4) Lecture, three hours; discussion, one hour. Requisites: course 101 or Anthropology 1, or Life Sciences 4 and 23L, or 7C (each may be taken concomitantly). Course 105B is not requisite to 105A. Exploration of problems of human identity that are inherently biological and social. Topics vary and may include race, obesity and nutrition, autism, deafness or disability, gender, identity, and 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 it has spawned research from variety of perspectives, 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 they have produced. Letter grading.

106. Human Biology, Genetics, and Society. (5) Lecture, three hours and one tutorial, two hours. Limited to senior Human Biology and Society majors. Lectures, readings, discussions, and development of collaboratively culminating project. Group-based research projects in methodological and contemporary perspectives. Lecture at intersections of human biology, genetics, and society. Reading of large amounts of material to make sense of both scientific concepts and social and political issues, within original research project and presentation required. Letter grading.

M110D. Posthumans. (4) (Same as African American Studies CM110D.) Seminar, three hours. Denaturalization of concept of human and with it uniquely western philosophical commitments that sustain imagined boundaries between human and non-human, modern and pre-modern, male and female, abled and disabled, changing, indigenous and non-indigenous, African and whiteness, religious and secular. Exploration of formation of human throughout long course of Euro-American intellectual history and its contemporary posthuman formations. Study is informed by range of theoretical work that covers meaning of modernity, liberalism, inter-species relationships, critical race theory, conceptual problems in evolutionary biology, and public health. P/NP or letter grading.

M113. Ethical, Legal, and Societal Topics in Genet- ic Counseling. (2) (Same as Human Genetics CM113.) Lecture, two hours. Discussion of social, cultural, ethical, and legal issues in genetics and genetic counseling. Letter grading.

120. Genetics and Human History. (4) Lecture, three hours. Requisite: course 101 or Life Sciences 107. Advancements in genomic research have rapidly trans- formed traditional archaeological and historical investiga- tions 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 Nean- derthals and Denisovans, the origin of modern humans, the spread of agriculture throughout Europe, and genetic legacy of historical figures such as Thomas Jefferson and Genghis Khan. Discussion of practical and theoretical issues surrounding use of genetic research on human ancestry, including challenges of using ancient and modern DNA, population genetic theory, and ethical implications of genetic research for understanding ethnicities, Letters 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 binary that prop up scientific knowledge construction, and consideration of how norms and values embedded in Western science compare with indigenous or local knowledge systems. How medical research is motivated by competing assumptions of racial hierarchies and equality. Examination of governments of use of science to classify racially inferior and contami- nated by scientific racism. Emergence of human versus animal. Exploration of how people use knowledge about their embodied experiences to demand rights and accept responsibility for their own health and vitality, either in opposition to or alignment with scientific experts. How contemporary developments in science and technology bring to light some central concerns of social and political theory. Letter grading.

M144. Stress and Society: Biology and Inequality. (4) (Same as Sociology 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) 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 psychological consequences of poverty, and introduction of concepts of life course by following stress biology through childhood development and into adulthood. Letter grading.

146. Evolution in Anthropocene. (4) Lecture, three hours; discussion, one hour. Recommended requisites: 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 alter human culture, fashion trends, and history. Exploration of footprint 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, and ethics of interference, and artificial intelligence among others. Students synthesize primary literature on diverse subjects presented. Letter grading.

M160. 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 not only as a biological but also as a tool to bring about desired outcomes in a variety of populations. 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 differences between individuals, 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 sociological and history. Consideration of scientific controversies between behavior geneticists and their critics. Focus on the social organization of behavior genetics as group of scientists, and public reception of behavior genetics and disputes about its social and policy implications. Letter grading.

162. Biotechnologies, Law, and Body. (4) Seminar, three hours. Biotechnology is altering the nature of human living and to choose to die and create the perception that our bodies are protected by law, that somehow we possess ownership and control over our bodies, en-compas that our biological being 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 what ways are our biological being integrated into biotechnology. Introduction to political and legal discourse of rights. Historical perspective of how law and policy have treated our bodies. Legal and policy issues emerging from new biotechnological developments. Examination of reproductive issues, including abortion, assisted reproduction, disputes regarding disposition of 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 current ethical dilemmas? How do we determine what is good for patients? How should we use new technology to extend human life? How should we treat complex cases? How should we ensure that new technology is safe? How should we use new technology to improve society? How should we treat and enumerate ethical issues surrounding health care? Letter grading.

165. Introduction to Bioethics. (4) Lecture, three hours. Should one be allowed to choose sex of baby or whether they will be tenable to the next basketball star? Should terminally ill be helped to die? How do we embryos have moral status? Examples of ethical questions that arise in light of dramatic advances in biology. Exploration of the meaning of life in the 21st century. While new knowledge and biotechnology give rise to new challenges, biotechnology can be used to improve the quality of life. Introduction to field of bioethics, with focus on cases that rely on contemporary ethical concepts as they apply to new medical technologies and decision making. Letter grading.

M166. Health-Care Ethics. (4) (Same as Disability Studies M166.) Lecture, three hours; discussion, one hour. Consideration of critical ethical concepts as they apply to health-care concept of patient autonomy and decision making, and medical technology and decision making. Consideration of concepts drawn from philosophy, literature and culture, and political history in inclusion, freedom, equality, justice, vitality, knowledge, kinship, mercy, illness, and disability. Examination of how concept of human dignity should shape health-care decisions such as physician-assisted dying or selective abortion; proper relationship between history and concept of human rights and distribution of medical resources; how political and ethical and equality should structure development and use of gene technologies. Consideration of how scientific autonomy relates to political concept of liberty or freedom; how to evaluate good life, or what philosophers call flourishing, in medical treatment decisions for individuals or development of therapies. P/NP or letter grading.

174. What’s Wrong with Science? (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 105A. Exploration of tangled issues linking science and society. Society is the context for science, as science is the context for society. Coverage of ideas and frameworks from sociology, philosophy, anthropology, political psychology, and science and technology studies, consideration of range of material about complexity of science. De-texts as well as commentaries and documents speaking to current events. Consideration of demarcation of science from pseudoscience, conditions turning scientific disagreement into public contro-
197. Individual Studies in Society and Genetics. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Intensive individual study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (paper or other product) required. May be repeated for credit. Individual contract required. Letter grading.

198. Directed Research in Society and Genetics. (2) Tutorial, six to 12 hours. Preparation: submission of written proposal outlining study or research to be undertaken due to undergraduate adviser for department approval. Studies to involve laboratory research, not primarily literature surveys or library research. Proposal to be developed in consultation with instructor. Limited to juniors/senior. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other students may enroll only with department faculty sponsor. Supervised individual research under guidance of faculty mentor. At end of term culminating paper describing progress of project and signed by student and instructor must be presented to department. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate or fellow. Teaching apprenticeship under active guidance of faculty mentor. Fee and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

SOCIETY

College of Letters and Science

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Sociology

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Department e-mail

Abigail C. Saguy, PhD, Chair

Faculty Roster

Professors

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Victor Agadjanian, PhD
Walter R. Allen, PhD (Allan Murray Cartter Professor of Higher Education)
César J. Ayala, PhD
Philippe I. Bourgeois, PhD, in Residence (Richard D. and Ruth P. Walter Professor of Psychiatry)
Jennie E. Brand, PhD
Rogers Brubaker, PhD (UCLA Foundation Professor)
Steven E. Clayman, PhD
Jessica L. Collett, PhD
Rebecca J. Emigh, PhD
Laura E. Gómez, JD, PhD
Rubén Hernández-Léon, PhD
Patrick C. Heuveline, PhD
Darnell M. Hunt, PhD
Marcus A. Hunter, PhD (Scott Waugh Endowed Professor of Social Sciences)
Gail Kilgman, PhD
Hannah L. Landecker, PhD
Ching-Kwan Lee, PhD
Omar A. Lizardo, PhD (LeRoy Neiman Term Professor)
Cecilia C. Menjivar, PhD (Dorothy L. Meier Professor of Social Equities)
Vilma Ortiz, PhD
Aaron L. Panofsky, PhD
Anne R. Pebley, PhD (Fred H. Bixby Professor of Population Policy)
Abigail C. Saguy, PhD
Olav J. Sorensen, PhD
Tanya J. Stivers, PhD
Megan M. Sweeney, PhD
Sherod Thaxton, JD, MA, PhD
Christopher C. Tilly, PhD
Stefan Timmermans, PhD
Andres Villarreal, PhD
Roger Waldinger, PhD
Edward T. Walker, PhD
Min Zhou, PhD

Professors Emeriti

Jeffrey C. Alexander, PhD
Rodolfo Alvarez, PhD
Ronald M. Anderson, PhD (Fred W. and Pamela K. Wasserman Professor Emeritus of Health Services)
Kenneth D. Bailey, PhD
Richard A. Berk, PhD
Phillip Bonacich, PhD
Duane W. Champagne, PhD
Robert M. Emerson, PhD
Oscar Grusky, PhD
David J. Halle, PhD
M. Nicolette Hart, PhD
John C. Heritage, PhD
Jack Katz, PhD
Barbara B. Lai, PhD
Ivan H. Light, PhD
David E. Lopez, PhD
Michael Mann, PhD
William M. Mason, PhD
Ruth M. Milkan, PhD
Jeffrey Prager, PhD
Jerome Rabow, PhD
William G. Roy, PhD
Emmanuel A. Schegloff, PhD
Judith A. Seltzer, PhD
Katherine V.W. Stone, JD (Arjay and Frances Fearing Miller Professor Emerita of Law)
Ivan Szelenyi, PhD
Warren D. Tenhouten, PhD
Donald J. Treiman, PhD
Maurice Zeitzin, PhD
Lyne G. Zucker, PhD

Associate Professors

Amada Armenta, PhD
Hiram Beltran-Sanchez, PhD
Jacob G. Foster, PhD
S. Michael Gaddis, PhD
Kevan K. Harris, PhD
Ka-Yuet Liu, PhD
Meredith Phillips, PhD
Natasha M. Quadlin, PhD
Gabriel Rossman, PhD
J. Christopher Zepeda-Millán, PhD

Assistant Professors

Jason L. Ferguson, PhD
Jeffrey J. Guhin, PhD
Christopher J. Herring, PhD

Journal Club Seminars: Society and Genetics. (f) Seminar, one hour. Limited to undergraduate students. Discussion of topics related to guest speaker series. May be repeated for credit. P/NP grading.

191S. Capstone Seminar: Human Biology and Society (graduate level). (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. Culminating paper required. May be repeated once for credit with topic change. Letter grading.

191R. Capstone Seminar: Human Biology and Society. (5) Seminar, three hours. Enforced requisites: courses 105A, 105B. Students bring their accumulated interdisciplinary knowledge and methodological tools to bear on one contemporary problem at intersection of biology and society. Student peers, whose major studies fall within different concentrations, share and learn from each others’ multiple perspectives while working together on one topic presented in class. Topics vary and come from major concentrations. Culminating project is team writing assignment, such as grant proposal, report to Congress on contemporary issue, or business plan for new kind of company or nonprofit firm addressing issues in human biology and society. Letter grading.

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. Culminating paper required. May be repeated once for credit with topic change. Letter grading.

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. Culminating paper required. May be repeated once for credit with topic change. Letter grading.

Research Apprenticeship in Society and Genetics. (2) Tutorial, six hours. Limited to junior/seniors. Entry-level research opportunities in society and genetics under guidance of faculty mentor. May be repeated for maximum of 4 units. Individual contract required. P/NP or letter grading.
Overview

Sociology is the study of the organization, dynamics, and consequences of social life. The scope of the discipline is as broad and diverse as social life itself. Sociologists study social interaction and relationships, organizations and institutions, communities and whole societies. The methods of sociological investigation are also varied: sociologists immerse themselves in the daily life of groups, interview group participants, examine recorded interaction, interpret historical documents, engage in quantitative analysis of data, and conduct large surveys. The methods and concepts of sociology yield powerful insights into the social processes shaping lives, problems, and possibilities in contemporary society. The ability to identify and understand these processes—a capacity that C.W. Mills called the “sociological imagination”—is valuable preparation for personal and professional participation in a changing and complex world.

The Department of Sociology faculty includes internationally renowned scholars who address topics ranging in scope from the organization of face-to-face interaction to the consequences of globalization. The department boasts outstanding teaching awards and distinguished Teaching Awards—and excellently trained teaching assistants, many of whom have also won Dis- tinguished Teaching Awards—and excellent opportunities for undergraduate research.

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

Entry to the Major

Pre-major

Only students with fewer than 90 units completed (excluding Advanced Placement units/credit) may declare the Sociology pre-major once they complete either Sociology 1 or 20 with a grade of C or better.

First-Year Students

Students must petition to declare the Sociology major. If Sociology 101 or 102 has already been completed, a grade of C or better is required. Grades in any other completed sociology courses for the major must be C or better.

Transfer Students

Transfer applicants to the Sociology pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introduction to sociology course and one statistics course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Sociology 1, 20, and one course from Political Science 6, Statistics 10, or 13.

The Major

Required: Eleven upper-division courses, including (1) two theory courses—Sociology 101, 102; (2) one methods course from Sociology 10SA, 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.

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.

Computing Specialization

Majors in Sociology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10A, 10B, 10C, and (3) completing Sociology 111, 113. Each course must be taken for a letter grade. Students graduate with a bachelor’s degree in sociology and a specialization in Computing.

Policies

Preparation for the Major

A minimum grade of C is required in each preparation for the major course. Students with a grade-point average less than 2.0 in the preparation coursework are not eligible for admission to the major. Students who repeat any preparation course more than once are automatically denied admission to the major.

The Major

Students should complete course 101 and the core courses before taking other upper-division courses.

Each course for the major must be taken for a letter grade. To graduate, students must have at least a 2.0 grade-point average in their upper-division major courses, with grades of C or better in Sociology 101 and 102.

Only 8 units of Sociology 199 are allowed. The two theory courses, three core area courses, one methods course, and one sociology elective (seven courses total) must be taken while in residence in the College of Letters and Science at UCLA.

Honors Program

As preparation for the honors program, students must complete all preparation for the major courses.

Students must have a 3.5 overall grade-point average, have completed the sociology preparation requirements and, in most cases, have completed the required theory course. Applications are available from the undergraduate adviser’s office, 254E Haines Hall.
Graduate Major
Sociology MA, CPhil, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate 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 interaction, and tools of sociological investigation. P/NP or letter grading.

2. Sociology of Black Communities. (5) Same as African American Studies M5.) Lecture, four hours; discussion, one hour; field trips. Analysis and interpretation of social organization of black communities, with focus on origins and development of black communities, competing theories and research findings, defining characteristics and contemporary issues. Letter grading.

3. Social Thought and Origins of Sociology. (5) Lecture, three hours; discussion, two hours. Introduction to history of social thought, with special emphasis on theological and philosophical development of discipline of sociology. Exposition and analysis of selected social theorists and concepts, especially from the 18th to 19th centuries. Letter grading.

4. 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.

5. Introduction to Sociological Research Methods. (3) Lecture, three hours; discussion, two hours. Introduction to methods used in contemporary sociological research, with focus on issues of research design, data collection, and analysis of data. Fieldwork may be required. Letter grading.

6. American Racism: Psychosocial Analysis. (5) Lecture, four hours; discussion, one hour. Examination of long-standing history of American racism, beginning with slavery. Jim Crow legislation, separate but equal doctrine, Brown versus Board of Education, Civil Rights legislation of 1960s, and Obama presidency. Focus on persistence over time of racist beliefs and mechanisms through which racism becomes passed on from one generation to next. Racism toward African Americans and harms it inflicted on African American community, as well as on nation as whole. Examination of psychology and sociology of racism through video clips, social scientific texts, essays by prominent American humanists, and American literature that deals centrally with racism. P/NP or letter grading.

7. Sociology of Migration. (5) Lecture, two hours; discussion, two hours; fieldwork, eight to 10 hours. Research practicum in which students write field notes on their experiences in and observations of intensive internship field placement. Readings focus on fieldwork roles and relations, observing and describing, writing field notes, field interviewing, ethical issues, and preliminary data analysis. Fieldwork and extensive field note grading.

8. Field Research Methods I. (6) Lecture, two hours; discussion, two hours; fieldwork, 10 hours. Requisite: course 106A. Collection and analysis of both field notes and unstructured interview data from student field placement. Use of techniques of qualitative data analysis, including qualitative coding, analytic memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.

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To 19th centuries. 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. Honor content noted on transcript. P/NP or letter grading.

90HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial, three hours. May be repeated. Letter grading.

101. Development of Sociological Theory. (5) Lecture, three hours; discussion, one hour. Comparative survey of basic concepts and theories in sociology from 1850 to 1920. Letter or P/NP grading.

102. Contemporary Sociological Theory. (5) Lecture, three hours; discussion, one hour. Critical examination of significant theoretical formulations from 1920 to present. Letter or P/NP grading.

106A. Field Research Methods I. (6) Lecture, two hours; discussion, two hours; fieldwork, eight to 10 hours. Research practicum in which students write field notes on their experiences in and observations of intensive internship field placement. Readings focus on fieldwork roles and relations, observing and describing, writing field notes, field interviewing, ethical issues, and preliminary data analysis. Fieldwork and extensive field note grading.

106B. Field Research Methods II. (6) Lecture, two hours; discussion, two hours; fieldwork, 10 hours. Requisite: course 106A. Collection and analysis of both field notes and unstructured interview data from student field placement. Use of techniques of qualitative data analysis, including qualitative coding, analytic memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.

110. Comparative and Historical Methods. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 101. Introduction to range of comparative and historical methods alongside broader questions and issues in this area of sociology. Students learn about using theories to analyze real-world cases; making comparisons between societies and other social units; developing sociological explanations for historical events; and generalizing about social patterns and changes over time. Letter or P/NP grading.

111. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks create social structure, how social actors utilize 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.

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 computational integral calculus). Statistics 10. Mathematical treatment of several sociological phenomena, such as occupational mobility, population growth, organizational structure, and friendship patterns, each concerned with the development and subsequent evaluation and modification (emphasizing both deductive and computational aspects of mathematics). Letter grading.

113. 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, including use of computer and write papers analyzing prepared data sets. P/NP or letter grading.

114. Social Data Science. (4) Lecture, three hours; discussion, one hour. Data analysis, and way social theory and data are linked. Covers data and computing environment, regression analysis, causal analysis, and machine learning. Offers tools for conducting quantitative analyses of social phenomena, including using existing computational methods. Integrates substantive and statistical analyses in research projects. May be repeated. Letter grading.

115. Environmental Sociology. (4) Same as Environment M133 and Sociology and Genetics M133. 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, waste disposal, sustainability, and global warming). P/NP or letter grading.


117. Family Demography. (4) Lecture, three hours; discussion, one hour. Examination of demographic behaviors, such as marriage, divorce, and childbearing, associated with family and household organization. Sociological approach to understanding causes and consequences of trends and differentials in family formation and dissolution. P/NP or letter grading.

118. Simulating Society: Exploring Artificial Communities. (5) Same as Honors Collegium M148. Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of behavior in artificial communities. P/NP or letter grading.

119. Primate Societies. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Selected topics on primate societies and a variety of topics on human and nonhuman primate communities. Emphasis on interrelationships among groups. Emphasis on role of primates in human societies, cultural ecology, and primate communities. P/NP or letter grading.

120. Disability Rights Law. (4) Same as Disability Studies M149.) Lecture, four hours. Examination of disability-related issues impacting people of all ages and communities from preschool to higher education, and 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.

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 the role 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, gender, and sex 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 and agency, with which individual actions can be constrained by social forces and agency (degree to which individuals can choose their own courses of action). Major theories (Macionis, Weberian, demographic, Marxist) and 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. M124A. (Formerly numbered M124A.) Introduction to various theories employed in organization of conversational interaction, such as turn-taking, action sequencing, and repair. Concurrently scheduled with course M124B. Requisite: course CM124A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversation.

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 social institutions, with an emphasis on contemporary society, in which individuals are being asked to think and act in different ways, as constrained by social forces and agency (degree to which individuals can choose their own courses of action). Major theories (Macionis, Weberian, demographic, Marxist) and 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.

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 properties for 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 extra-ordinary contexts. P/NP or letter grading.


129. Sociology of Time. (4) Lecture, three hours; discussion, one hour. Conceptualizations of time seen from scientific, philosophical, historical, and sociological perspectives; cyclical and linear time in primitive, ancient, and medieval societies; ritual, the sacred, and experience of the eternal; structuring of urban, modern, and postmodern societies by clock, calendar, and schedule; future value orientation and notion of progress; 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 personhood (on SES on health and disease, for example). Requisite: course CM124A-M124B. Requisite: course CM124A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversation.

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, 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 deviance; reference groups; and interaction process. P/NP or letter grading.

133. Collective Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Characteristics of crowds, mobs, publics, social movements, and revolutions; their relation to social unrest and their role in developing and changing social structures. P/NP or letter grading.

134. Culture and Personality. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Theories of relation of variations in personality to culture and group life, in primitive and modern societies, and influence of social role on behavior. P/NP or letter grading.

135. Sociology of Body. (4) Lecture, three hours; discussion, one hour. Examination of body as social construction that is situated within particular social and historical context. Students gain understanding of how bodies become gendered, raced, classed, and sexualized in ways that create and reinforce social institutions and relations of power. Analysis of reciprocal processes of structuration: how body is shaped by social expectations and symbolic exchange, how meanings are attached to bodies and different body parts, and how these interpretations in turn shape social relations. Critical evaluation of embodiment experience, and contribution of sociological theories and data to understanding this process. P/NP or letter grading.

136. Eating Society: Science and Politics of Food from Individual to Global. (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 an understanding of relationships among interests of food manufacturers, medical and social organizations of food production and processing through set of research frameworks newly emergent in range of social and health sciences. Topics include individual and social ramifications of microbiome science; understanding how human gut microbes and health are shaped by 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 and sustainability; the impact of making meta-bolic health to issues of sustainable agriculture, for example how pesticides and fertilizers tie diets to environmental concerns; and the role of food systems in face of environmental pollution as issue of reproductive health. Letter grading.

137. Historical Sociology of Urban/Rural Relations and Food Production. (4) (Same as Food Studies M137 and Society and Genetics 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 of food and understanding how populations grow 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. 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 24. Both kinds of violent death are 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 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 explanation for why different theories make sense of violent death, paying particular attention to forensic and medicolegal system to determine suicide and solve homicides. Review of historic and contemporary studies to examine how research and conceptualizations of suicide and homicide have changed, as well as social responses to these phenomena. P/NP or letter grading.

141A. Migration and Labor in Mexico-U.S. Context. (4) Seminar, 20 hours. Mexico-U.S. migration is largest and oldest continuous international population flow of contemporary world. In recent decades, prompted by social, economic, and political transformations, Mexican Americans 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 billed as a bilateral agenda. Examination of sociological dynamics of international migration and labor as they apply to Mexico-U.S. context, including demographic, political, and economic dynamics of migration, economic and social infrastructures that support cross-border mobility, and connections of migration with bi-national, national, regional, and local labor markets. Comparative insights to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

141B. Migration and Labor in Mexico-U.S. Context: Research Seminar. (4) Seminar, 10 hours; fieldwork, 10 hours. Development of qualitative micro-study and research paper on migration and labor in Mexico-U.S. context. Research topic of interest to be selected so students become familiar with commonly employed qualitative methods of research. Designed to help students understand basic methods of logical reasoning, how to formulate research questions, and how to frame and investigate an empirical 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 culminates in writing a paper to be presented to faculty members and peers. Offered in summer only. Letter grading.

M142. Healthcare in Transitional Communities. (4) (Same as Public Health M142.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.

143. Human Health and Society. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1, 20, 101. Exploration of long-run historical trends in relationships between human health and organization, drawing on historical, anthropological, demographic, and sociological concepts, theories, and data. P/NP or letter grading.

144. 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) 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 physiologic sequences 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 deviation and general survey of major types of deviation in American society. P/NP or letter grading.

147A. Sociology of Crime. (4) Lecture, three hours; discussion, one hour. Examination of sociological theories of social origins, organization, and meanings of crime and criminal behavior. 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.


149. Youth, Trouble, and Juvenile Justice. (4) Lecture, three hours; discussion, one hour. Examination of processes and factors involved in juvenile justice system. Analysis of this system as people-processing and people-changing institution as context for considering critical issues in juvenile justice. P/NP or letter grading.

M150. Sociology of Aging. (4) Same as Gerontology 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.

151. Comparative Immigration. (4) Lecture, three hours; discussion, one hour. Survey of immigration of Europeans, Asians, and Hispanics to the U.S. since the mid-19th century. Overview of immigration experience on ethnoracial groups that migrated voluntarily to this country, with emphasis on immediate postimmigration settlement. P/NP or letter grading.

152. Comparative Acculturation and Assimilation. (4) Lecture, three hours; discussion, one hour. Requisite: course 151. Comparison of acculturation and assimilation of Europeans, Africans, Mexicans, and Asians in the U.S., with emphasis on long-term cultural consequences of immigration. P/NP or letter grading.


154. Race and Ethnicity: International Perspectives. (4) Lecture, three hours; discussion, one hour. Not open 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. Exploration of history and social conditions of Latinos in the United States, as well as nationally, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and social structures and meanings. Special attention to comparison of African American and European American experiences and to transformation of Asian American and Latino communities and the nation generally since the end of World War II. Social movements in second half of the 20th century. P/NP or letter grading.

157. Social Stratification. (4) Lecture, three hours; discussion, one hour. Analysis of American social structure in terms of evaluational differentiation. Topics include criteria for differentiation, bases for evaluation, types of stratification, composition of strata and status systems, mobility, social change and stratification, and problems of methodology. P/NP or letter grading.

158. Urban Sociology. (4) Lecture, three hours; discussion, one hour. Description and analysis of urbanization and urbanism in the U.S. and world. P/NP or letter grading.


M162. Sociology of Gender. (5) Same as Gender Studies M162. Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or Gender Studies 10. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.


M164. Politics of Remigration and Everyday Life. (4) Same as Gender Studies M164. Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Social and human reproduction is global policy issue. Governmental efforts and policies are important features of modern state; political intervention into private life, intimacy, and sexuality. Exploration of politics of re-creation—interrelation between politics and life cycle or between public sphere and private lives—and coverage of broad range of issues addressing prevention and promotion of reproduction from historical-comparative approach. Reading, discussion, and development of culminating project. P/NP or letter grading.

M165. Sociology of Race and Labor. (4) Same as African American Studies M165 and Labor Studies M165. Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Role of race, ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workplace 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.

168. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and re-examination of organizational behavior in society. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law in preindustrial and industrialized societies, legalization of contemporary social relations, participants’ experiences as legal professionals in justice, social movements toward equal justice, roles of lawyers and judges, social impact of court decisions. P/NP or letter grading.

170. Medical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Provides majors in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of health-seeking behavior and 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 occupational experiences and professions, with emphasis on contemporary U.S. P/NP or letter grading.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Description and analysis of entrepreneurship, with special reference to historical origins, ideology, international comparisons, women and ethnic minority participation, and 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 family 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 a social institution and system, its structure, and functions, including historical changes, variant family patterns, family as institution, and influence of contemporary family on society. P/NP or letter grading.

M175. Sociology of Education. (5) Same as Education M150B. Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunity and exacerbates socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background shapes educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic attainment, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

176. Sociology of Mass Communication. (4) (Same as Communication M147.) Lecture, four hours; discussion, one hour. Limited to juniors/seniors. Study of selected topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

M178. Sociology of Caribbean. (4) Same as African American Studies M178. Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Study of political sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

180A-180Z. Special Topics in Sociology. (4 each) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Study of selected topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

181A. Sociology of Global China. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Analyses of how domestic developments create impetus for China’s global expansion, and assessments of global China’s variegated and uneven consequences. Concrete case studies include Belt and Road Initiative, soft power and cultural diplomacy, international colonization of Hong Kong and Xinjiang, China in Africa, U.S.-China trade war, and New Cold War. P/NP or letter grading.

181B. Sociology of Contemporary China. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Study of contemporary Chinese society from beginning of 20th century to present. Topics include social mobility and inequality, family and household, and population. Emphasis on changes post-Re-Form Era and in present. Focus on interaction of economic, political, and social changes in family life. Contrasts and similarities between China and West, China’s place in social sciences, and challenges due
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 181B. Survey of comparative and historical studies in sociology. Various aspects of development of modern society, including development of nation-state, emergence of capitalism, industrialization, and population growth. Variation in contemporary society, viewed from variety of theoretical perspectives. P/NP or letter grading.

185. American Society. (4) Lecture, three hours; discussion, one hour. Analysis of major institutions in the U.S. in historical and international perspective, with emphasis on topics such as industrialization, work, state, politics, community, family, religion, and American culture. Theories of social change, conflict, and order applied to case of the U.S. P/NP or letter grading.

186. Latin American Societies. (4) Lecture, three hours; discussion, one hour. Social structure and social conflict in Latin America, with special attention to racial and class differences. Enforced corequisite: course 181B. Social change and political development. Country and specific focus varies each term. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, one hour. Enforced corequisite:Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188BS. 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.

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.


191F. Undergraduate Seminar: Sociology of Globalization. (3) Seminar, two hours. Limited to juniors/seniors. Great expansion 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 far will it go in future? Economic, cultural, political, and military 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. Letter grading.

191H. Honors Seminars: Sociology. (4) Seminar, three hours. In-depth introduction to process of producing scholarly sociological research for students who intend to write undergraduate thesis for department honors. Letter grading.

191I. Undergraduate Seminar: Health and Inequality. (3) Seminar, three hours. Limited to juniors/seniors. During 20th century, social inequalities 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. (3) 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. (3) 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 imperialism, global corporation in western Europe, its role in rise of industrial system of life and health consequences, and its demise as legitimate soft drug for modern urban people. Letter grading.


191M. Undergraduate Seminar: Social Ecology. (3) Seminar, three hours. Limited to juniors/seniors. Fundamentals of sociological approach to social ecology, also known as human ecology. Study of adaptation of population to its environment. Topics include density, maintaining personal space, space and territoriality, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

191N. Undergraduate Seminar: Urban and Suburban Sociology in New York City. (5) Seminar, eight hours. Limited to students in summer UCLA Travel Study Program. Cutting-edge urban issues in country's largest city, including New York's attempt to plan for city of 9.2 million, rebuidling of World Trade Center, Robert Moses (New York's master builder), urban economic development, New York's transportation systems, urban politics, house and architectural styles, crime, urban terror, public housing and ghettos, segregation, integration of minority communities, and question of gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C2397. Letter grading.

191NY. Undergraduate Seminar: Urban and Suburban Sociology in New York City. (5) Seminar, eight hours. Limited to students in summer UCLA Travel Study Program. Cutting-edge urban issues in country's largest city, including New York's attempt to plan for city of 9.2 million, rebuidling of World Trade Center, Robert Moses (New York's master builder), urban economic development, New York's transportation systems, urban politics, house and architectural styles, crime, urban terror, public housing and ghettos, segregation, integration of minority communities, and question of gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C2397. Letter grading.

191O. Undergraduate Seminar: Ideals of Love in Historical Perspective. (3) Seminar, three hours. Limited to juniors/seniors. Exploration of historical and specifically specific understandings of love. Reading, discussion, and development of culminating project. Letter grading.


191Q. Undergraduate Seminar: Communication in Medical Care. (3) Seminar, three hours. Limited to juniors/seniors. Sociology of patient care in primary care context. Use of microsociological methods to examine main facets of American primary care medical visits, including detailed analysis of interactional conduct of those visits and development of microanalytical constructs into quantitative measures. Emphasis on direct contact with empirical materials and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

191R. Undergraduate Seminar: Social Capital. (3) Seminar, three hours. Limited to juniors/seniors. Introduction to classic theories of social capital and contemporary developments in study of social worlds dedicated to creating and handling cultural institutions such as literature, journalism, film/television, art, architecture, music, dance, and museums. Discussion of such issues as contemporary validity of distinction between high and popular/low culture, relationship of mainstream and marginal culture, how culture expands and reinforces social norms and organizational context of culture, and how people express and decipher meaning in cultural objects. Reading, discussion, and development of culminating project. Letter grading.

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 sexual preference and sexual behavior can also form basis for social identity, repression, discrimination, and privilege, independent of gender. Social factors such as social class,
ethnicty, generation, and networks shape our sexual practices and choice of partners. Reading and writing about variety of original sociological, historical, and anthropological texts and development of culminating project. Letter grading.

191T. Undergraduate Seminar: War and Society. (5) Seminar, three hours. Limited to juniors/seniors. Study of relationship between society’s military and its social organization in general, with particular attention to shock-based civic militarism characteristic of the West. Introduction, discussion problems of conceptions, logistics, total war, guerilla war, terror, and counterinsurgency. Reading, discussion, and development of culminating project. Letter grading.

191V. Variable Topics Research Seminars: Sociology. (5) Seminar, three hours. Limited to juniors/seniors. Study of selected topics of sociological interest. Reading, discussion, and development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. Letter grading.

194. Research Group Seminars: Sociology. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit with change of topic. Letter grading.

M194DC. Quarter in Washington, DC, Research Seminar. (4) (Same as History M194DC and Political Science M194DC.) Seminar, three hours. Limited to Quarter in Washington and other classes 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 placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of future of significant research, intensive writing. Letter grading.

195. Community or Corporate Internships in Sociology. (4) Tutorial, three hours. Limited to juniors/seniors. Internship in community agency or business to be supervised jointly by Center for Community Learning and faculty adviser. Students meet on regular basis with instructor and provide weekly reports of their experience. Normally only 4 units of internship are allowed. Individual contract with supervising faculty member required. P/NP or letter grading.

195CE. Community and Corporate Internships in Sociology. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend bimonthly meetings with supervising faculty member, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. No more than 4 units may be applied toward major; units applied must be taken for letter grade. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. Quarter in Washington, DC, Internships. (4) (Same as Community Engagement and Social Change M195DC, Political Science M195DC, and Public Affairs M195DC.) Tutorial, four hours. Limited to junior/senior Quarter in Washington program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP or letter grading.


199. Directed Research in Sociology. (2 to 4) Tutorial, one hour. Preparation: 3.0 grade-point average in major. Requisites: course 1, and Political Science 6 or Statistics 10. Design of research project to complete for major. Independent intensive study designed for students who want to do research under guidance of faculty mentor. Scheduled meetings to be arranged between faculty mentor, student, and supervising faculty member. Culminating paper or project required. May be repeated for maximum of 16 units, but only 8 units may be applied toward major. Individual contract required; see undergraduate counselor. P/NP or letter grading.

199A-199B. Directed Research in Language and Social Behavior. (4–4) Tutorial, one hour. Limited to junior/senior Language and Social Behavior minors. Independent intensive study designed for students who want to do research under guidance of member of Language and Social Behavior minor faculty advisory committee. Scheduled meetings to be arranged between faculty mentor, student, and supervising faculty member. Culminating paper or project required. Individual contract required; see undergraduate counselor. Letter grading.

Graduate Courses

201A-201B-201C. Proseminars: Sociology. (2–2–2) Seminar, two hours every other week. Required of first-year graduate 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. Requisite: first-year graduate students. Examination of interrelations of theory, method, and substance in exemplary sociological works, with analytical and skills-centered orientation. In Progress (202A) and S/U or letter grading.

203. How to Write a Lot. (4) Seminar, three hours. Designed to help graduate students develop regular and productive writing practices. Appropriate for students in their second year or beyond who have one full draft of their paper written or in revision and wish to publish it in timely manner. Development of regular writing schedules and protecting them from competing demands. Learning of scientific genres of writing for academic journals. Editing of students’ own work and that of classmates. S/U or letter grading.

204. Topics in Sociological Theorizing. (4) Seminar, four hours. Examination of selected issues and problems in classical or contemporary sociological theory. S/U or letter grading.

205. Family and Social Change. (4) Lecture, three hours. Examination of sources of change in family and household organization, with major focus on relationships among economic institutions, family structure, and content of family life. Consideration of concepts, theories, and data about kinship. S/U or letter grading.

206. Understanding Fertility: Theories and Methods. (4) Same as Anthropology M206. (4-4) Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 100A. Application of demographic theories and methods to describe fertility trends and differentials and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced students interested in population, demography of health, and social demography. Letter grading.


210C. Intermediate Statistical Methods III. (4) Lecture, three hours; discussion, one hour. Requisite: course 210B. Survey of advanced statistical methods used in social research, with focus on problems for which classical linear regression model is inappropriate, including categorical data, structural equations, longitudinal data, incomplete and erroneous data, and complex samples. S/U or letter grading.

211A-211B. Comparative and Historical Methods. (4–4) Lecture, three hours. In Progress (211A) and S/U or letter (211B) grading. 211A. Strategies of Research and Conceptualization. Topics include relationship of theory to fact to social science, comparative and historical analysis, and substantive paradigms of comparative and historical analysis. Reading involves methodological examination of basic works in representative problem areas. 211B. Research Techniques. Requisite: course 211A. Topics include problem of evidence, quantitative and qualitative data. Techniques of data analysis, including use of manu- facture, content analysis, collective biography, and secondary analysis.

212A. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced 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 at utilizing statistical methods encountered in previous course in context of real sociological problems. Style of American Sociological Review or similar journal article. Topics include simple tabular analysis, correlation, analysis of linear trend, regression, diagnostic procedures, and methods for handling complex survey designs. In Progress grading (credit to be given only on completion of course).

212B. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 212A. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses, culminating in term paper in style of American Sociological Review or similar journal article. Topics include missing data, regression, hypothesis testing, and ordinal logistic regression; factor analysis and scale construction; methods for causal inference, including fixed effects and propensity score matching; analysis on advanced topics, including fixed effects and structural equations and multilevel models. S/U or letter grading.

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Designed for graduate and undergraduate students who have some exposure to statistical methods. Introduction to study design, including experimental, longitudinal, cohort, time-series designs, contextual, and other designs. Discussion of suitability of various statistical techniques for specific research goals, as well as their comparative strengths and weaknesses. S/U or letter grading.

Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval, analysis of mortality, and demographic data sources. Letter grading.

213B. Applied Event History Analysis. (4) Lecture, three hours. Preparation: exposure to binary response models. Requisites: courses 210A, 210B. Introduction to regression-like analyses in which outcome is time to event. Topics include logit models for discrete-time event history models; piecewise exponential hazards models; proportional hazards; nonproportional hazards; parametric survival models; time- and event-dependent covariates; multi-level survival models. S/U or letter grading.


216A. Survey Research Design. (4) Lecture, three hours. Recommended requisite: course 210A. Past, present, and future of survey research design; survey modes; survey design and 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 applications of survey design skills. Students design and implement individual survey data collection projects and collectively review and evaluate their projects’ results and design.


217B-217C. Ethnographic Fieldwork. (4–4) Seminar, three hours. Designed for graduate students. Emphasizes current theoretical debates in qualitative research and empirical data and case studies on one or more countries in the Third World, and implications for theory construction and social research. S/U grading.


220. Self and Society. (4) Lecture, three hours. Nature of class structure and how it affects perceptions, choices, and experiences of black women and black men in contemporary society. How race, class, gender, and sexual identity are axes of stratification, identity, and experience. They are not merely identities but structural locations that are often taken for granted and rarely confronted, challenged, or contested. Many times one or more of these axes of identity are at the center of how social structures are constructed. This course is designed to help students develop critical thinking skills in understanding how these axes are interconnected and in forming a basis for further study. S/U or letter grading.

221. Foundations of Ethnomethodological, Phenomenological, and Analytic Sociologies. (4) Lecture, three hours. Designed for graduate students. Basic issues, methods, and topics of ethnomethodological, phenomenological, conversation-analytic, and related varieties of inquiry. Central themes such as world of everyday life, problem of rationality, rules/norms and tacit knowledge, problem of social order, speaking and discourse, constitutive practices, and production of ordinary interaction in first person; guest presentations by affiliated faculty in second part. S/U or letter grading.

222. Phenomenological and Interactionist Perspectives of Social Theory. (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 focuses on development of phenomenological and interactionist thought on topic of concern, with special concern for ambiguities and divergences both within and between two approaches. When relevant, attention to differences among cultural relations of phenomenology and interactionism to pragmatist, existentialist, and ordinary language philosophies. S/U or letter grading.

M225A. California Population Research Topical Seminar Series. (4) (Same as Economics M224A.) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transition in Latin America, and in U.S. and abroad. May be taken independently for credit. S/U grading.


227. Sociology of Knowledge. (4) Lecture, three hours. Designed for graduate students. Survey of theories and research concerning social determinants of systems of knowledge and role of intellectual and artistic elites in Western societies. S/U or letter grading.

228. Critical Issues in Macrosociology. (4) Lecture, three hours. Emphasizes conceptual introduction to area. How macrosociology in which exemplary works are read, studied for substance and methods, and critiqued in seminar and in written papers. S/U or letter grading.

230A-230B. Comparative Ethnicity, Race, and Nationalism. (4–4) Seminar. Preparation for independent research in area of comparative ethnicity, race, and nationalism through course reading of key theoretical and empirical works. S/U or letter grading.

230C. Comparative, Ethnographic, and Policy Sociology. (4) Seminar, three hours. Introduction to comparative and historical sociology of race and ethnicity to demonstrate merits of double comparative approach to race, and the comparative approach at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and nationality) as it does at level of research. Exploration of wide variety of countries, including Australia, Brazil, Colombia, Dominican Republic, Haiti, Mexico, modern China, modern Japan, Nazi Germany, and Third World, and implications for theory construction and social research. S/U grading.

236A. International Migration. (4) Lecture, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on exploring both the conceptual underpinnings of fields of social research and case studies on which those debates hinge, to encourage students to undertake research in field. S/U or letter grading.

236C. International Migration. (4) Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lectures, oral presentations of student projects, circulation of completed or draft student papers. S/U or letter grading.


M238. 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 sociological approaches, controversies, critiques, and second wave feminism working by class feminists and/or feminists of color, feminist scholars from other countries, and recent so-called antifeminist feminists. Discussion of differences between future feminist theories. S/U 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; effects of family, school, and labor market on socioeconomic achievement, careers, and inequality; earnings, income, and wealth distribution; poverty; social mobility; socioeconomic factors and marriage; gender and other stratification; and health disparities. S/U or letter grading.

240. Sociology of Education. (4) Lecture, three hours. Overview of social scientific study of education, with special focus on sociology (along with history and philosophy). Examination of contemporary sociology of education’s focus on stratification at two levels. Examination of how schools have shaped students’ role in maintaining or altering social 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, complement, or provide foundation for other long-standing 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; what a gender is thought in classical macrosociology; how masculine paradigms make space for gender or does feminist-informed sociology necessitate fresh approach? S/U or letter grading. C244A. Conversational Structures I. (4) Formerly numbered 244A.) Lecture; three hours; discussion, one hour. Introduction to various structures employed in organizing human interaction, such as turn-taking, action sequencing, and repair. Concurrently scheduled with course CM124A. S/U or letter grading.

244B-244C. Conversation Analysis I, II, III. (4-6) Lecture, three hours; discussion, two hours. S/U or letter grading. 244B. Require: course C244A. Continuation of introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of word selection and reference to persons, places, time, and action. 244C. Requisites: courses 244A, 244B. Continuation of introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of word selection and reference to persons, places, time, and action. S/U or letter grading.

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 empirical issues in structural approaches to culture. Perspectives include cultural economics, 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 oppositions to emotions; creativity and expressed affect; thought, sensations, and emotions; specific emotions; cultural differences in emotional expression; measurement of emotions. Letter grading.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Topic: Selected for graduate students. Seminar on selected topics on culture and society. Consult Schedule of Classes for topics and instructors. S/U or letter grading. M249. Culture, Brain, and Development. (4) (Same as Psychology M247.) Seminar, three hours. General introduction to interrelations of culture, brain, and development, including both social and cognitive development. Special attention to effects of social change on culture and human development. S/U or letter grading.


251. Social Movements. (4) Seminar, three hours. In-depth exploration of important theoretical debates and empirical research on social movements, collective action, and contentious politics, examining case studies, comparative analyses, and large-N investigations, with focus student expertise in understanding social movement research and conceptualizing research projects. S/U or letter grading.

M252. Selected Topics in Sociology of Gender. (4) (Same as Gender Studies M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

255. Politics of Reproduction, Gender, and Family. (4) Lecture, one hour. 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.


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 of critical assessment of diverse literature on international traffic of persons, with emphasis on significance of sociological, legal, and gender aspects of trafficking. Primary focus on trafficking for sex work and blurred lines between discourse on commercial sex trade and trafficking. Additional issues include role of political and economic transition, militarization, health implications of trafficking, trafficking for non-sexual labor, and role of advocacy. S/U or letter grading.

281. Selected Problems in Mathematical Sociology. (4) Lecture, three hours. Exploration of some mathematical models of sociological processes. Possible topics include modeling, social mobility, kinship relations, organizations, social interaction. S/U or letter grading.

282. Sociology of Medicine. (4) Seminar, three hours. Review of critical assessment of diverse literature on sociology of medicine. Topics include medicine, culture, and capital, professions and power, challenges of managed care, sick role and social control, interactionism and negotiation of sickness, sickness and self, debates over medicalization and demedicalization. Designed as preparation for field examination in sociology of health and medicine and specifically for themes traditionally included under medical sociology/sociology of medicine. S/U or letter grading.

283. Communication in Medical Care. (4) Seminar, three hours. Review and development of empirical knowledge about doctor-patient relationships. 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 on China in any social sciences discipline. Introduction to current research questions in Chinese sociology, as well as major themes in study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change before and after 1949. S/U or letter grading.

289A-289B. Practicum in Conversation Analysis. (2–4) Requisites: courses 244A, 244B. S/U grading.

299A. Data Analysis. Laboratory, two hours. Practice in analysis of conversational data. May be repeated for credit.

299B. 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.

C297. Urban and Suburban Sociology. (5) Seminar, three hours. History and present condition of cities and suburbs in America, with stress on global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization 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 three or four hours. 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.

M402. Practices of Evaluation in Health Services: Theory and Methodology. (4) (Same as Health Policy M422J) Lecture, four hours. Requisites: Health Policy 200A, 200B. Introduction to evaluation of health services and programs. Exposure to basic theories about evaluation 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 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.


SPANISH AND PORTUGUESE
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Overview
The Department of Spanish and Portuguese is dedicated to the study and teaching of the languages, literatures, and cultures of the Hispanic heritage in all areas of the world, particularly on the continents of Europe and America. It maintains a strong commitment to the value of original research and professional instruction at all levels of its activities.

Whether studying for the Bachelor of Arts (BA), Master of Arts (MA), or Doctor of Philosophy (PhD) degree, students are given careful guidance in the choice of courses and in the preparation of a study program. The richness of Hispanic culture is amply represented in the extensive range of courses in language, linguistics, and literature. Although the literatures of Spain, Portugal, Brazil, and Spanish America predominate, courses are also offered in Chicanos literature. The breadth of courses offered by the department allows undergraduate students to pursue many possible interests and enables graduate students to concentrate in depth in several areas of specialization.

Department courses are primarily designed to serve the five BA programs: BA in Spanish, BA in Spanish and Community and Culture, BA in Spanish and Linguistics, BA in Spanish and Portuguese, and BA in Portuguese and Brazilian Studies; as well as to prepare students for its three graduate programs: MA in Spanish, MA in Portuguese, and PhD in Hispanic Languages and Literatures. The courses are also functionally supportive of such interdepartmental programs as the BA, MA, and PhD programs in Chicana and Chicano Studies, BA and MA programs in Latin American Studies, and MA and PhD programs in Comparative Literature.

Undergraduate Policies

Language Acquisition Courses
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 coursework. Additionally, students acquire a working knowledge of scholarly discourse relative to a specialized topic, conceive and execute an associated project, and engage with a community of scholars, presenting their work to peers and helping to further peers’ work through discussion and critique.

Learning Outcomes
The Spanish major has the following learning outcomes:

- Demonstrated written and oral mastery of the Spanish language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Entry to the Major

Transfer Students
Transfer applicants to the Spanish major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Spanish 25 or 27, M35, 42, 44.

The Major
Required: (1) Two core courses (Spanish 119 and 120), (2) eight upper-division Spanish elective courses in literature, culture, linguistics, media, service learning, or interdisciplinary studies, up to three of which may be from an outside department that deals with Spain or Spanish America and have been approved by the undergraduate adviser, and (3) one senior capstone seminar (Spanish 191C).

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies

Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better. By petition, and after consultation with the undergraduate adviser, up to three 4-unit Spanish 197 or 199 courses may be applied toward the major.

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

Entry to the Major

Transfer Students
Transfer applicants to the Spanish and Community and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Spanish 25 (or 27), M35 (or Portuguese M36), 42, 44.

The Major
Required: (1) Spanish 100A or 100B, 119; (2) four elective Spanish literature, culture, linguistics, or media studies courses selected from 130, 135, 140, 150, 155C, 160, 170, 175, 195; (3) two interdisciplinary studies courses selected from Chicana/o and Central American Studies 100X, CM106, M119, 120, M121, M122, 131, M144, 149, 181, Sociology M155; (4) two capstone community-based and experiential learning courses (8 to 10 units) selected from Chicana/o and Central American Studies 100X, Spanish M165XP, M172XP.

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies

Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better. 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 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.

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, emphasizing Latin American Spanish and Chicano Spanish or Los Angeles vernacular
- Identification and analysis of appropriate primary linguistic sources within the generative framework
- Working knowledge of scholarly discourse in a specialized Spanish linguistics topic (phonology, syntax, and historical linguistics)
- Conception and execution of a project that identifies and engages with a specialized Spanish linguistics topic as a result of the practical part of the courses on phonetics and phonology and on syntax

Entry to the Major
Transfer Students
Transfer applicants to the Spanish and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one introduction to linguistics course, and one Spanish or Spanish American civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Linguistics 20 (with grade of B– or better), Spanish 25 or 27, M35 (or Portuguese M35), 42 or 44.

The Major
Required: (1) Spanish 100A, 100B, 119, Linguistics 103, 120A, 120B, (2) one course from Linguistics 160 or 165A or 165B, and (3) four upper-division Spanish electives, two of which must be from Spanish 160.

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies
Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major, except Linguistics 20, which must be passed with a grade of B– or better.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better.

Honors Program
The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental 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.

Spanish and Portuguese BA

Learning Outcomes
The Spanish and Portuguese major has the following learning outcomes:

- Demonstrated oral, aural, and written mastery of the Spanish and Portuguese languages
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Conception and execution of research projects that identify and engage with a specialized topic
- Identification and analysis of appropriate primary sources
- Working knowledge of scholarly discourse on a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Entry to the Major
Transfer Students
Transfer applicants to the Spanish and Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one introduction to linguistics course, and one Spanish or Spanish American civilization course.

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
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies
Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better.

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 and Brazilian Studies BA

Study Abroad
Students are encouraged to spend up to one year in a Portuguese-speaking country to study in a university or conduct research. Appropriate credit may be granted in accordance with the individual program, arranged in consultation with the undergraduate faculty adviser in Portu-
guese. Proposals must be submitted in advance in writing and must be approved by the department.

**Learning Outcomes**
The Portuguese and Brazilian Studies major has the following learning outcomes:
- Demonstrated oral, aural, and written mastery of the Portuguese language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Conception and execution of research projects that identify and engage with a specialized topic
- Identification and analysis of appropriate primary sources
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

**Entry to the Major**

**Transfer Students**
Transfer applicants to the Portuguese and Brazilian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one nature of language course, one Portuguese civilization course or one Brazilian civilization course, and one Brazilian culture course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**
*Required: Portuguese 25 or 26 or 27 (27 recommended), 46.*

**The Major**
*Required: Ten upper-division courses (45 units minimum), including Portuguese 100A or 100B, 130A or 130B, and seven elective courses selected from 100A through 199.*

**Honors Program**
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

**Policies**

**Preparation for the Major**
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major.

**The Major**
Out of the seven elective courses, three courses from outside the department that focus on Brazil, Portugal, or Lusophone Africa may be applied toward the major with approval of the undergraduate adviser. A minimum of five out of the seven elective courses must be taken in Portuguese.

Each course must be taken for a letter grade and passed with a grade of C or better.

By petition, and after consultation with the undergraduate adviser, up to three 4-unit Portuguese 197 or 199 courses may be applied toward the major.

**Honors Program**
The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental counselor. On the basis of their coursework and special interests, students then consult with a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

**Double Majors**
Through judicious use of electives, students may find it possible to secure the BA degree with two complete majors (e.g., Portuguese/Spanish, Portuguese/History, Portuguese/Sociology, etc.). Interested students should consult with the undergraduate adviser in Portuguese as early as possible in their BA program.

**Undergraduate Minors**

**Mexican Studies Minor**
The Mexican Studies minor allows students with an interest in Mexico to augment their major program 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.

**Required Lower-Division Courses (9 units):**
Spanish 25 or 27, and one course from History 157B, 160B.

**Required Upper-Division Courses (20 units):**
Three courses selected from Portuguese 100A through 199, and two upper-division courses on a Brazilian topic.

**Policies**
Courses may be taken in Portuguese or English but must be clearly related to an aspect of Brazilian studies.

Only one 4-unit Portuguese 197 or 199 course may be applied toward the minor.

By petition, up to two upper-division courses on Portugal or Brazil may be taken in other departments and applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade and passed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Spanish Minor**

**Admission**
To enter the Spanish minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.
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 S314 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.

Graduate Majors

Hispanic Languages and Literatures CPhil, PhD

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

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

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


15A-5B-SC. Elementary NahuaLI. (4–4–4) Formerly numbered M5A-M5B-M5C.) Lecture, five hours. Enforced requisite: course 5B, which is enforced requisite to 5C. Introduction to Aztec language of central Mexico. Coverage of basic NahuaLI grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

15A-15B-15C. Intermediate NahuaLI. (4–4–4) Formerly numbered M15A-M15B-M15C.) Lecture, four hours. Enforced requisites: courses 5A, 5B, 5C. Course 15A is enforced requisite to 5B, which is enforced requisite to 5C. Taught primarily in NahuaLI. Examination of NahuaLI (Aztec) language of central Mexico at intermediate level. Coverage of NahuaLI grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

Upper-Division Courses

115A-115B-115C. Advanced NahuaLI. (4–4–4) Formerly numbered M115A-M115B-M115C.) Lecture, four hours. Requisites: courses 15A, 15B, 15C. Course 115A is requisite to 115B, which is requisite to 115C. Taught primarily in NahuaLI. Examination of NahuaLI (Aztec) language of central Mexico at intermediate level. Coverage of NahuaLI grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

111A-111B-111C. Advanced Quechua. (4–4–4) Lecture, five hours. Requisite: course 18C. Course 111A is requisite to 111B, which is requisite to 111C. Readings in Quechua. Dialectal and stylistic variation. Discussions mainly in Quechua. P/NP or letter reading.

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 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.

199. Student 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 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.

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.

Spanish and Portuguese / 819
Graduate Course
596. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisites: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward MA 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. 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.

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 conversation 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. Advanced intensive course designed only for students with proficiency in another Romance language. P/NP or letter grading.

13. Intensive Introductory Portuguese Language and Culture. (12) Lecture, 20 hours; laboratory, three hours. Intensive introduction to Portuguese language and culture equivalent to courses 1, 2, and 3, and 11A and 11B. Proficiency-oriented, communicative and task-based approach intended to facilitate communicative competence in four language skills areas: listening, speaking, reading, and writing. Development of cultural awareness of heterogeneous Portuguese-speaking community in America, Europe, and Africa. Intensive accelerated course designed to help students increases their ability to communicate in Portuguese. 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.


Upper-Division Courses

100B. Syntax. (4) Lecture, four hours. Enforced requisite: course 27. Survey of syntax of Portuguese language. P/NP or letter grading.

M122. foundations in Visual Culture in Iberian, Lat- American, and Luso-Brazilian Worlds. (4) (Same as Spanish M122.) Lecture, four hours. Requisite: course 25 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 materials—from 16th-century maps of Americas to YouTube videos of street protests in Chile; from Modernist architectural designs for new national capitals to TV novelas and colonial photographs; and everything in between—introduction to practices, processes, objects of study, and interdisciplinary critical frameworks of field of visual culture studies. By examining manifestations of visual culture from Iberian, Latin American, and Luso-Brazilian worlds, students will understand culturally specific foundations of visual knowledge and skills of visual literacy. P/NP or letter grading.

130A-130B. Introduction to Literature in Portuguese. (4-4) Lecture, four hours. Requisite: course 25 or 27. Introduction to diverse Portuguese-speaking authors and cultures, and authors from Brazil in context of Portuguese-speaking world. P/NP or letter grading.

141A. Literature and Film in Portuguese. (4) Lecture, four hours. Taught in English. Study of intertextuality and dialogism, interactions between literary and cinematic fields, question of fidelity, and equivalents between literary and cinematic expression in Portuguese-speaking world. May be repeated for credit with topic change. P/NP or letter grading.

141B. Film, Television, and Society in Brazil. (4) Lecture, four hours. Taught in English. Study of development, evolution, and impact of film and television in Brazil against backdrop of broader social, historical, and cultural contexts. May be repeated for credit. P/NP or letter grading.

141C. Documentary Film. (4) Lecture, four hours. Taught in English. Overview of documentary film production in Portuguese-speaking world, with special focus on period since 1985. May be repeated for credit with topic change. P/NP or letter grading.

142A. Brazil and Its Culture. (4) Lecture, four hours. Taught in English. Exploration of roots of contempor- ary Brazil through study of broad chronological pe- riods from Portuguese colonization to present and how they shaped idea of Brazilian exceptionalism, racial mixture as source of national identity, and luso- tropicalism and its influence on Brazilian historiog- raphy. May be repeated for credit with topic change. P/NP or letter grading.

142B. Brazil and Portugal in Comparative Perspective. (4) Lecture, four hours. Taught in English. Study of social and cultural links between Portugal and Brazil, with emphasis on issues of migration, dialogue, and contention in historical context. May be repeated for credit with topic change. P/NP or letter grading.

142C. Travel Narratives, Testimony, Autobiography. (4) (Formerly numbered 142C.) (Same as Comparative Literature M142.) Lecture, four hours. Taught in English. Exploration of travel memoirs and narratives written by Portuguese speakers in Brazil. Enforced prereq: upper-division Portuguese or Spanish. Themes, currents, and circumstances that led the writer to depict life choices, experiences, and attitudes as they tried to make sense of displacement. May be repeated for credit with top change. P/NP or letter grading.

143A. Colony, Intellectuals, and History. (4) Lecture, four hours. Taught in English. Lecture, four hours. Taught in English. Study of intertextuality and dialogism, interactions between literary and cinematic fields, question of fidelity, and equivalents between literary and cinematic expression in Portuguese-speaking world. May be repeated for credit with topic change. P/NP or letter grading.

200A. Directed Research. (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. Students will be in an 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.

25A. Advanced Portuguese: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Advanced Portuguese course with cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

26. Language and Popular Culture. (4) Lecture, three hours. Requisite: course 3 or 11B. Development of speaking, reading, and writing skills. Structured in thematic units with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

27. Writing Studies: Afro-Luso-Brazilian World. (4) Lecture, three hours. Requisite: course 3 or 11B. Further development of communicative skills, especially writing. Discussions and activities increase knowledge and ability to communicate in terms of cultural production in Portuguese language. Students continue to acquire cultural competence. Introduction to study of literature, with specific focus on themes and topics pertinent to Lusophone world. P/NP or letter grading.

27A. Advanced Composition and Style: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) (Same as Spanish M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Study 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.


46. Brazil and Portuguese-Speaking World. (5) Lec- ture, four hours; discussion, one hour (when sched- uled). Taught in English. Exploration of cultural 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 detail than in upper-division lecture courses. May be repeated for credit with topic change. P/NP or letter grading.

98H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-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. P/NP or letter grading.

99C. Honors Research. (1) Tutorial, three hours. Enforced requisite: 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 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
143B. Transatlantic Literature in Portuguese. (4) Lecture, four hours. Enforced requisite: course 27. Study of modern relations between Portugal and Portuguese-speaking world in literature and arts. May be repeated for credit with topic change. P/NP or letter grading.

143C. Modernism, Modernity, and Identity. (4) Lecture, four hours. Requisite: course 25 or 26 or 27. Examination of concepts and practice of modernism in Portuguese-speaking world, with primary focus on 1920s. In depth with respect to interwoven relation with other national movements and to sociohistorical context, relations with European avant-garde, modernist poetics and polemics, and search for national identity. Intensification in period’s poetry and prose. May be repeated for credit with topic change. P/NP or letter grading.

143D. Contemporary Literature in Portuguese. (4) Lecture, four hours. Requisite: course 25 or 26 or 27. Exploration of connections between literatures of Angola, Brazil, and Portugal against background of globalization and Internet. May be repeated for credit with topic change. P/NP or letter grading.

175. Topics in Creative Writing and Literary Translation. (1) Lecture, three hours. Enforced requisite: course 27. May be repeated for credit with topic change. P/NP or letter grading.

180. Topics in Visual Culture. (4) Lecture, four hours; discussion, one hour (when scheduled). Experimental studies through visitation to museums, exhibition, and gallery. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecturer or course instructor. May be repeated for credit with topic change. P/NP or letter grading.

187FL. Special Studies: Readings in Portuguese I, II. (4) Tutorial, two hours. Requisite: course 27. Course 197FL 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 in greater depth through supplemental readings, papers, or other activities and led by lecture or 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. Undergraduate Variable Topics Seminars: Portuguese. (4) 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 term. May be repeated for credit. P/NP or letter grading.

195. Community Internships in Portuguese. (4) Tutorial, two hours; fieldwork, eight weeks. Requisite: course 25 or 26 or 27. Limited to juniors/seniors. Community internship 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- to 10-hour per week of volunteer work in on- or off-campus 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.

198A-198B. Senior Honors Research in Portuguese I, II. (4) Tutorial, to be arranged. Preparation: completion of minimum of six upper-division major core courses with 3.7 grade-point average. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May not be applied toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Portuguese. (2 to 4) Tutorial, to be arranged. Requisite: course 27. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Capstone 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 Spanish M200. Lecture, three hours. Identification and use of research resources for graduate students.

M201A-M201B. Literary Theory and Criticism. (4–4) Lecture, three hours. Enforced requisite: course 27. Study of most important authors to 1830. May be repeated for credit with topic change. S/U or letter grading.


M204A-204B. Generative Grammar. (4–4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter. Letter grading.

M205A-M205B. Development of Portuguese and Spanish Languages. (4–4) Same as Spanish M205A-M205B. Lecture, three hours. Study of evolution of Portuguese and Spanish languages from their origin in spoken Latin.


M232. 19th-Century Brazilian Literature and Culture. (4) Lecture, three hours. Enforced requisite: course 27. Study of trends and authors. May be repeated for credit with topic change. S/U or letter grading.


M251A-M251B. Studies in Galápagos-Portuguese and Old Spanish. (4 to 6) Lecture, three hours. Lecture, two hours. Study of problems related to historical development of Galápagos-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.


M275. 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.

M296. Directed Individual Study or Research. (1 to 2) Tutorial, to be arranged. Requisite: course 27. Preparation: approved study topic. May be repeated for credit with topic change. S/U or letter grading.

M297. Preparation for Graduate Examinations. (1 to 2) 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 each 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.

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. Course designed for students with no previous Spanish or very basic knowledge in Spanish, with cultural activities, field trips, lunch/owns. Offered in summer only. P/NP or letter grading.

2B. 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 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.

3A. Intensive Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school Spanish. Introductory intensive basic Spanish course in Spanish, with cultural activities, field trips, lunch/owns. 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 connected discourse, reading of texts with minimum use of dictionary, writing with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

5. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of connected discourse, reading of texts with minimum use of dictionary, writing with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

5A. Introductory Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. Laboratory is conducted in Spanish. Taught to students who are from Spanish-speaking family background 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. Enforced requisite: course 3A or 7A or Spanish placement test. Laboratory is conducted in Spanish. Taught to 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-8B. Spanish Conversation. (2–2) Discussion, three hours. Enforced requisite: at least course 3 and course 4, with either proficiency in Spanish or proficiency on AP Spanish test. Students who have completed course 3 with grade of B or better may be admitted. P/NP or letter grading.

9A-9B. Advanced 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 Hispanic culture. Offered in summer only. P/NP or letter grading.

11A-11B. Catalan Language and Culture I, II. (4–4) Lecture, five hours. Enforced requisite: course 11A. P/NP or letter grading. 11A. Preparation: 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 language and culture. Three-term sequence language with emphasis on listening, speaking, reading, writing, and cultural competence. P/NP or letter grading. 12B. Requisite: course 12A. 12C. Requisite: course 12B.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical and 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. Advanced Spanish Composition. (4) Lecture, three hours. Requisite: course 5. Emphasis on development of communicative abilities, both oral and written, as well as on increasing comprehension of variety of forms of cultural production in Spanish language and on preparation for more advanced Spanish courses. P/NP or letter grading.


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 special interest in fields such as medicine, business, law, etc. P/NP or letter grading.

28B. Spanish for Special Purposes: Business. (4) Lecture, three hours. Recommended requisite: course 3. Introduction to Spanish language and its diverse cultures in a variety of business settings. Offers opportunities to practice simple language that may be useful in airports, hotels, restaurants, and informal and professional professional settings where Spanish is target language. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) Same as Portuguese M35.) Lecture, three hours; discussion, one hour. Introduction to language study 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; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, eco- nomic, social, and historical development as background for upper-division courses. P/NP or letter grading.

44. Latin American Cultures. (5) Lecture, four hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, eco- nomic, social, and historical development as background for upper-division courses. P/NP or letter grading.

60A-60B-60C. Hispanic Literatures in Translation. (4–4–4) Lecture, three hours. Class readings and analysis of selected works in translation. Classroom dis- cussion, papers, and examinations in English. 60A: Spanish Literature; 60B: Spanish-American Literature; 60C: Don Quijote.

88A-88Z. Lower-Division Seminars. (4 each) Seminar, three hours. Knowledge of Spanish not essential. Offered in different versions that are designed to explore various themes and issues pertinent to Historical and culture.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division courses. Offered 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. Indi- vidual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

97. Variable Topics in Spanish. (2) Lecture, two hours. Variable topics course with lectures, discussions, and papers; consult Schedule of Classes or department counselor for topic to be offered in specific term. May be repeated for credit. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per quarter. Individual contract required. Designed for upper-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. Limited to students in College Honors Program. May be required. P/NP grading.

Upper-Division Courses


120. Literature in Historical Context. (4) Lecture, four hours; discussion, one hour. Requisite: course 25 or 27. Introduction to different ways of looking at literary works as historical phenomena. Presentation of major models of literary historical criticism and their application to characteristic periods (medieval, pre Hispanic, colonial, and republic periods). P/NP or letter grading.

M122F. Foundations in Visual Culture in Iberian, Latin American, and Luso-Brazilian Worlds. (4) (Same as Portuguese M122.) Lecture, four hours. Requisite: course 25 or 27. Portuguese 25 or 27. Taught in English. Addresses specificities of visual culture in Spanish- and Portuguese-speaking worlds. Through critical engagement with wide range of visual materials—from 16th-century maps of Americas to YouTube videos of street protests in Chile; from Modernist architectural designs for new national capitals to television and video; from colonial and postcolonial photographs and everything in between—introduction to practices, processes, objects of study, and interdisciplinary critical frameworks of field of visual culture studies. By examining manifesta tions of the Spanish and Portuguese worlds from Iberian, Latin American, and Luso-Brazilian contexts, students gain culturally specific foundations of visual knowledge and skills of visual literacy. P/NP or letter grading.

130. Topics in Medieval Studies. (4) Lecture, four hours; fieldwork, three hours; field project, four to six hours. Requisites: courses 25 or 27, and 119. Exploration of medieval Iberian literatures: lyric poetry, prose, and history of the peninsula, with emphasis on its literary and linguistic diversity. Possible topics include Convivencia (period of coexistence), Europe and Orient, gummings of Inquisition, oral versus written traditions, origins of Hispanic-Christian expansion beyond peninsula, 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 (when scheduled). Enforced requisites: courses 25 or 27, and 119. Exploration of 16th and 17th centuries, with focus on early modern Spanish and Spanish American literatures. Possible topics include Spanish colonization and indigenous responses, transatlantic literary and visual baroques, in construction of early modern nation, transatlantic fictions, early modern identities and theatrical representations, literature and historiography, transatlantic poetics and poetry. May be repeated for credit with topic change. P/NP or letter grading.

140. Topics in Modern Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 25 or 27, and 119. Exploration of major literary movements and writers of 18th and 19th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, nationalism, building literature, realism and naturalism, and works by Cadacllo, Concerlo corvo, Lizard, Lara, Samiento, Bécquer, Rivas, Sánchez de Roman, and Galdós. May be repeated for credit with topic change. P/NP or letter grading.

M145A. Introduction to Chicano Literature: Literature to 1960. (4) (Same as Chicana/o and Central American Studies M145A.) Lecture, three hours. Requisite: course 25 or 27. Introduction to texts representative of Chicano literary heritage. Sampling of genres, as well as historical and geographical settings and points of view, to provide understanding of work written by Chicanos during 20th century. Most required reading in Spanish. Bilingual and English works included and discussed. Reading and analysis of number of important texts and critical statements pertaining to Chicano 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, vanguard movements, lettered and popular cultures, literary modernization in Latin American boom, literature and revolution, autobiographical, modernist, and postmodernist fiction. May be repeated for credit with topic change. P/NP or letter grading.

M155A. Chicano Narrative. (4) (Same as Chicana/o and Central American Studies M145B.) Lecture, three hours; discussion, one hour. Enforced requisite: M145A. Exploration of major Chicano narrative genres—novel, romance, satire, autobiography, cronicón/simulación, Chicana detective novel, and Chicana solidarity fiction. The text examiners cultural, social, and historical contexts, as well as within history of narrative forms. P/NP or letter grading.

M155B. Literature of Chicanos/Chicana Movement. (4) (Same as Chicano/Chicano Movement) Lecture, three hours. Enforced requisite: course 25 or 27. Exploration of literature of Chicano/Chicana movement covering period from 1st manifestation of Chicano artistic production in 1965 with el Teatro Campesino, through rise of women’s writing, including work by Cherríe Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/NP or letter grading.

155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Enforced requisite: course 25 or 27. Exploration of spread of Spanish-American literature and culture throughout North America, including literatures that are outgrowth of rights movements of 1960s, recent demographic changes, new transnational identities, and mixed citizenships of U.S. Latinos and Chicanos. Chico Puerto Rican, Cuban American, Central American-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 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 works within their own grammar. P/NP or letter grading.

M165XP. Taking It to Street: Spanish in Community. (Formerly numbered M165SL.) (Same as Chicano/o and Central American Studies M167XP) Seminar, three hours; fieldwork, 10 hours. Enforced requisite: course 25 or 27. Service learning course to give students opportunity to work with Chicano/Latino community. P/NP or letter grading.

165C. Topics in Creative Writing and Translation. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 25 or 27. Exploration of creative writing and translation in Spanish and Spanish American literatures. Possible topics include transculturation and heterogeneity, race and religion in construction of early modern identities and theatrical representations, literature and historiography, transatlantic poetics and poetry. May be repeated for credit with topic change. P/NP or letter grading.

166. Topics in U.S. Latino Studies. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 25 or 27. Exploration of spread of Spanish-American literature and culture throughout North America, including literatures that are outgrowth of rights movements of 1960s, recent demographic changes, new transnational identities, and mixed citizenships of U.S. Latinos and Chicanos. Chico Puerto Rican, Cuban American, Central American-American, South American-American, and Jewish Latino literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

170. Topics in Interdisciplinary and Transhistorical Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27, 119. Comparative study of cultural production in Latin American, Afro-Luso-Brazilian, and Iberian contexts across diverse historical periods, regional, and ethnic traditions. Possible topics include Afrolatinidad; diaspora; feminism; folklore; genre; globalization; indigeneity and indigenous studies (Andean, Mesoamerican, Amazonian, Tupi, and Tapuia); migration and immigration; music (1960s Latin American protest songs, nueva canción, música regional, punk, rap, folk); popular culture; regionalism. May be repeated for credit with topic change. P/NP or letter grading.

M172PX. Latinxs, Linguistics, and Literary. (Formerly numbered M172SL.) (Same as Chicano/o and Central American Studies M170XP) Seminar, three hours; fieldwork, 10 hours. Recommended requisite: course 100A. In-depth study of various topics related to literacy, including different definitions of literacy, programs for adult preliterates, literacy and gender, and Chicano/a critical approaches to literacy (whole language, phonicisms, Freire’s liberation pedagogy), history of writing systems, phoneme as base 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 art of translation or creative writing with most speakers of professional literary translators, poets, novelists, playwrights, and filmmakers who discuss theory, methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

180. Variable Topics in Visual Cultures. (4) (Formerly numbered M180.) Lecture, four hours; discussion; one hour (when scheduled). Requisites: courses 25 or 27, 119. Variable topics course with readings, transatlantic and transnational visual knowledge and skills of visual literacy. May be repeated four times for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and Civilization I, II. (1–2) Tutorial, one hour. Requisite: course 25 or 27. Designed as upper-division semester course in Hispanic literature, language, and culture. Exploration of topics in greater depth through supplemental readings, papers, community service, or other activities. Course 187A may be repeated once for credit. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191A. Variable Topics in Spanish: Studies in Hispanic Literary and Linguistics. (4) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Variable topics course with readings, discussions, and development of culminating paper. Consult Schedule of Classes or department counselor for topic to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization. (4) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culminating paper, and examinations in Spanish. May be repeated for credit with topic change. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requisite: courses 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; students work with one faculty member on one focused research topic. Culminating paper required. Letter grading.

195. Community Internships in Spanish. (4) Tutorial, one hour; fieldwork, 10 hours. Requisite: course 25 or 27. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide journal of their experience used to address current trends in discipline; students work with one faculty member on one focused research topic. Culminating paper required. Letter grading.

Spanish and Portuguese / 823
197. Individual Studies in Spanish. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for credit. Individual contract required. Letter grading.

198. 198A-198B. Senior Honors Research in Spanish I, II. (4-4) Tutorial, to be arranged. Preparation: completion of minimum of six upper-division major core courses with 3.7 grade-point average. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May not be applied toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Requisite: course 25. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Citing the paper required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) Same as Portuguese M200). Lecture, three hours. Identification and use of research resources for graduate students.

M201A-M201B. Literary Theory and Criticism. (4-4) Same as Portuguese M201A-M201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.

202A. Phonology. (4) Lecture, three hours. Study of the sound structure of Spanish and main phonological processes that map underlying representations into surface expressions. Bearing of phonological theory on study of meter.

202B. Morphology. (4) Lecture, three hours. Readings of and lectures on representative plays and poems. Theology of the Spanish Conquest. (4) Lecture, three hours. Readings on the topic of logical account of the Spanish Conquest.


241A-241B. Contemporary Spanish-American Short Story. (4-4) Lecture, three hours. Study of important short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Poetry. (4-4) Lecture, three hours. Readings of and lectures on representative poems of Spanish America from modernism to the present.

244A-244B. Contemporary Spanish-American Novel. (4-4) Lecture, three hours. Study of important novelists from modernism to the present.


255A-255B. Studies in Galegian-Portuguese and Old Spanish. (4-4) Same as Portuguese M255A-255B.) Lecture, two hours. Study of prob-lems related to historical development of Galegian-Portuguese and Old Spanish. Each course may be repeated once with topics change and consent of appropriate guidance committee.

256. Contemporary Spanish-American Studies in Spanish Linguistics. (4-4) Lecture, two hours. Study of topics in research and description of the contemporary Spanish language. Each course may be repeated once with topics change and consent of appropriate guidance committee.

257. Studies in Contemporary Literature. (4) Discussion, two hours. May be repeated once with topics change and consent of appropriate guidance committee.

258A-258B. Studies in Medieval Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

261A-261B. Studies in Golden Age Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

265. Cervantes. (4) Discussion, two hours. May be repeated once with topics change and consent of appropriate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

271A-271B. Studies in 19th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

272A-272B. Studies in 20th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

277A-277B. Studies in Colonial Spanish-American Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

278A-278B. Studies in 19th-Century Spanish-American Literature. (4-4) Discussion, two hours. Each course may be repeated once with topics change and consent of appropriate guidance committee.

280A. Studies in Contemporary Spanish-American Literature. (4) Discussion, two hours.


281. Studies in Chicano Literature. (4) Discussion, two hours. May be repeated once with topics change and consent of appropriate guidance committee.

290. Special Topics. (4) Lecture, two hours. Variable topics; consult Schedule of Classes or department counselor for topics to be offered in a specific term. May be repeated once with topics change and consent of appropriate guidance committee.

291A-291B. Colonial Studies Research Group. (2-2) Lecture group meeting, two hours. Limited to graduate students. Study and discussion of colonial manuscripts. Specific topics vary from year to year. Production of student papers for publication and/or presentation at conferences or symposiums. 291A. S/U grading. 291B. Requisite: course 291A. May be repeated for credit. 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 grading.

M297A. Proseminar I. (2) Same as Portuguese M297A. Proseminar, two hours. Limited to graduate students. Introduction to doctoral study and to professions. Designed to bring together first-year graduate students in seminar setting to discuss how to define their own work in relation to literary, linguistic, and/or cultural studies, broader humanities field, and our various communities. S/U grading.

310. Teaching Spanish in Elementary School. (4) Lecture, three hours. 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.
490. Using Technology in Foreign Language Classroom. (4) Discussion, two hours. Designed for graduate students. Theory and practice of using technology in foreign language classroom. Computer applications that facilitate instruction of grammar, discourse, culture, and composition, as well as evaluation and communication between students and instructor. S/U grading.


506. 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 4 units may be applied toward MA course requirements, S/U or letter grading.

597. Preparation for Graduate Examinations. (4 to 12) 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 each degree examination and only in term that comprehensive or qualifying examinations are to be taken. S/U grading.


STATISTICS
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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.

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 pre-major.

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, communication, 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 statistical model or algorithm
• Verbally communicate statistical results clearly to a non-technical audience
• Successfully relate theoretical concepts to a real-world problem in a written report
• Demonstrated ability to find research literature appropriate to the investigative task
Students are strongly encouraged to take elective courses from outside the department may be selected in consultation with the department director of undergraduate education.

The capstone consists of two courses (Statistics 140XP and 141XP) that must be completed sequentially in the final year. Students must first complete courses 100B and 101B before they can begin the capstone.

Students planning to continue their study of statistics at the graduate level are strongly advised to include in their schedule as many of the following courses as possible: Mathematics 115A, 115B, 131A, 131B, 151A, 151B, 170B, 171. Only 4 units of Statistics 195 and 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

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

**Data Theory BS**

**Capstone Major**

The Data Theory major is a designated capstone major. Students work in small teams to solve a large, open-ended data science problem for community- or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical model or algorithmic approach. Alternatively, students may undertake research on the foundations of data science, studying advanced topics and writing a senior thesis.

**Learning Outcomes**

The Data Theory major has the following learning outcomes:

- Understanding of mathematical and statistical bases of most common methods of data science
- Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
- Skillfully manage data
- Development, comparison, and testing of data-driven models to solve problems
- Understanding and explanation of variability when fitting and interpreting models of real-world systems
- Carrying out 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

**Entry to the Major**

**Pre-major**

Incoming first-year and transfer students may be admitted as Statistics pre-majors on acceptance to UCLA. Pre-major students must apply for the major after completing Statistics 20, and one course from Statistics 10 through 15, with grades of C or better, and an overall grade-point average of 2.5. Any student who meets the pre-major requirements may declare the major with the undergraduate student services adviser through Message Center.

**First-Year Students**

Students who entered as first years must declare the major with the undergraduate adviser no later than the end of the fall quarter of their junior year.

**Transfer Students**

Transfer applicants to the Statistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission: two years of calculus, one linear algebra course, and one statistics course. These courses must be completed with a minimum grade-point average of 2.5. Students must declare the major with the department undergraduate adviser no later than the end of the fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**


**The Major**


**Policies**

**Preparation for the Major**

Each course must be completed with a grade of C or better, and a grade-point average of 2.5 or higher. Students who repeat more than two of the preparation courses or who repeat any preparation course more than once are automatically denied admission to the major.

**The Major**

Students are strongly encouraged to take elective courses in departments other than Statistics, particularly in mathematics, computer science, and substantive disciplines that apply statistical methods. Elective courses from outside the department may be selected in consultation with the department director of undergraduate education.

The capstone consists of two courses (Statistics 140XP and 141XP) that must be completed sequentially in the final year. Students must first complete courses 100B and 101B before they can begin the capstone.

Students planning to continue their study of statistics at the graduate level are strongly advised to include in their schedule as many of the following courses as possible: Mathematics 115A, 115B, 131A, 131B, 151A, 151B, 170B, 171.

Only 4 units of Statistics 195 and 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

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

**Data Theory BS**

**Capstone Major**

The Data Theory major is a designated capstone major. Students work in small teams to solve a large, open-ended data science problem for community- or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical model or algorithmic approach. Alternatively, students may undertake research on the foundations of data science, studying advanced topics and writing a senior thesis.

**Learning Outcomes**

The Data Theory major has the following learning outcomes:

- Understanding of mathematical and statistical bases of most common methods of data science
- Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
- Skillfully manage data
- Development, comparison, and testing of data-driven models to solve problems
- Understanding and explanation of variability when fitting and interpreting models of real-world systems
- Carrying out 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 science
- Work effectively in a team on a data science problem
- Demonstrated eligibility for graduate study in applied mathematical science or statistical science
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.

Requirements

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 42, 115A; Program in Computing 10A; one course selected from Statistics 10, 12, 13, 15; Statistics 20, 21.

The Major

Required: Mathematics 118, 131A, 156, Statistics 101A, 101C, 102A, 102B, 147, 184; one two-quarter sequence: Mathematics 170E and 170S, or Statistics 100A and 100B; one elective selected from Mathematics 151A, 151B, 164, 168, 171, 174E, 178A, 178B, 178C, 179 or 182; one elective selected from Statistics 100C, 101B, 102C, or C151 through 199 (except Statistics 182, 186, or 189); two additional electives from either of the above lists; a capstone course (Mathematics M148 or Statistics M148), to be taken during the final year.

Policies

Preparation for the Major

Each course must be completed with a grade of C or better and an overall grade-point average of at least 2.7. All students must take Mathematics 42 at UCLA. The major is limited in size according to available resources.

Repetition of more than two mathematics or statistics sequenced courses or of any mathematics or statistics sequenced course more than once results in automatic dismissal from the major.

The Major

Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

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

Undergraduate Minors

Social Data Science Minor

The Social Data Science minor is designed to offer a solid background in data science for students majoring in social science disciplines. It is restricted to students who are declared majors within the Social Sciences Division.

Admission

To enter the minor, students (1) must have completed the required lower-division courses for letter grades with a minimum C or better grade in each course, and a grade-point average of 2.5 or better in lower-division courses; and (2) file a petition with the Statistics 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 major. Elective courses from outside the department are selected in consultation with the Statistics undergraduate faculty advisor. The variable topics courses Political Science 179 and 191E and Sociology 191V may only be applied toward the minor by special petition on the basis of their statistical content. Economics 104 may be used as a substitute for Statistics 101A as a requisite for Statistics 101B.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Master of Applied Statistics

Requirements

Optional, 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, CPhl, PhD

Requirements

Optional, 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, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, 12, 13, 14, or former course 10H. Introduction to statistical thinking and understanding, including strengths and limitations 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 Geography 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 techniques used in geography 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 package, including spatial statistics. P/NP or letter grading.
13. Introduction to Statistical Methods for Life and Health Sciences. (3) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 10H, 11, 12, or 14. Presentation and interpretation of data, descriptive statistics, statistical correlation and regression, and to basic statistical inference (estimation, testing of means and proportions, ANOVA) using both bootstrap methods and parametric models. 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. Introduction to data science, including data management, data modeling, data visualization, communication of findings, and reproducible work. 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 Statistical Programming with R. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course from 10, 12, 13, 15, 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 analysis. Use of computer programming to solve statistical problems. Topics include vector/matrix computation, multivariate normal distribution, principal component analysis, clustering analysis, gradient-based optimization, EM algorithm for missing data, and dynamic programming. P/NP or letter grading.

21. Python and Other Technologies for Data Science. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20. Covers use of Python and other technologies for data analysis and data science. Focus on programming with Python and selection of its libraries: NumPy, pandas, matplotlib, and scikit-learn, for purposes of data processing, data cleaning, data analysis, and machine learning. Other technologies covered: 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 calculation of scientific applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, variate distributions, Markov chain Brownian motion, expectation of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.

88. Sophomore Seminars: Statistics. (2) Seminar, two hours. Requisite: one course from 10, 11, 12, 13, or 14, Limited to 20 lower-division students. Readings and discussions designed to introduce students to current statistical consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter 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 minimum of 1 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 32B or Mathematics 170A or 170B. Survey sampling, estimation, testing, data summary, one- and two-sample problems. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A or 170B. Survey sampling, estimation, testing, data summary, one- and two-sample problems. P/NP or letter grading.

100C. Linear Models. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100B or Mathematics 170A or 170B. Emphasis on matrix approach to linear regression. Topics include model fitting, extra sums of squares principle, testing general linear hypothesis in regression, inference about linear combinations of coefficients, and prediction intervals. P/NP or letter grading.

101A. Introduction to Data Analysis and Regression. (4) Lecture, three hours; discussion, one hour. Requisite: one course from course 10, 12, 13, Economics 11, 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination. Focus on regression analysis. P/NP or letter grading.

101B. Introduction to Data Analysis and Regression. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Fundamentals of collecting data, including components of experiments, randomization and blocking, completely randomized designs, analysis of variance, and regression diagnostics, graphical procedures, and bootstrapping for statistical influence. P/NP or letter grading.

101C. Introduction to Statistical Models and Data Mining. (4) Lecture, three hours; discussion, one hour. Requisite: course 101B. Designed 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 influence. P/NP or letter grading.

102A. Introduction to Computational Statistics with R. (4) Lecture, three hours; discussion, one hour. Requisite: course 20, Mathematics 33A, and one course from course 10, 12, 13, Economics 11, 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examinaion. Introduction to computational statistics through numerical methods and computationally intensive methods for statistical problems. Topics include statistical graphics, root-finding, simulation, randomization testing, and bootstrapping. Introduces intermediate to advanced programing with R. P/NP or letter grading.

102B. Introduction to Computation and Optimization in Machine Learning with R. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100B (or Mathematics 170S), 102A, Mathematics 33A. Introduction to computational methods and optimization useful for statisticians. Use of computer programming to solve statistical problems. Topics include vector/matrix computation, multivariate normal distribution, principal component analysis, clustering analysis, gradient-based optimization, EM algorithm for missing data, and dynamic programming. P/NP or letter grading.

105. Statistics for Engineers. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B or Electrical Engineering 131A or Mathematics 170A. Foundation of basic concepts and techniques of statistics. Topics include sampling distributions, statistical estimation, hypothesis testing, confidence intervals, and hypothesis testing, with emphasis on application of these concepts. Discussion of methods for checking whether assumptions required for mathematical foundation are appropriate for given set of data. P/NP or letter grading.

121. Statistics: Window to Understanding Diversity. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: one course from course 10, 12, 13, Economics 11, 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination. Limited to juniors/seniors. Statistical methods in social sciences, including regression, multivariate techniques, logistic regression, and data-handling and analysis. Applications to social sciences, using professional statistical analysis software package for data analysis. Letter grading.


190. Computational Statistics. (4) Lecture, three hours; discussion, one hour. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 101B and 101C, or one course from 10, 11, 12, 13 and 14, Economics 11, 41, or Psychology 100A. Limited to juniors/seniors. Statistical methods for mathematical foundations appropriate for given set of data. P/NP or letter grading.

190X. Practice of Statistical Consulting. (4) Formerly numbered 140SL.) Lecture, one hour; discussion, two hours. Enforced requisite: 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 in statistical terms, create statistical model, 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 necessary. Courses 140XP and 141XP must be taken in consecutive terms. In Progress grading (credit to be given only on completion of course 141XP).

141XP. Practice of Statistical Consulting. (4) Formerly numbered 141SL. Seminar, one hour; discussion, one hour. Required: course 140XP. 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 in statistical terms, create statistical model, 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 necessary. Courses 140XP and 141XP must be taken in consecutive terms. Letter grading.

143. Introduction to Research in Statistics. (4) Seminar, two hours. Consent of instructor required. Courses 10, 12, 13, or Psychology 100A. Selected topics for analysis of psychological, educational, social, and behavioral science data. Classical test, factor analysis, generalizability, item response, optimal scaling, ordinal measurement, computer-adaptive, and related theories. Concepts of tests and measures and their reliability, validity, and bias. P/NP or letter grading.

155. Applied Sampling. (4) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students in science 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 random samples. Simple, stratified, and cluster sampling and characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. Concurrently scheduled with course CM248. P/NP or letter grade.


161. Introduction to Pattern Recognition and Machine Learning. (4) Lecture, three hours; discussion, one hour. Required: course 100B, Mathematics 33A. Introduction to pattern analysis and machine learning for advanced undergraduate and graduate students. Concurrently scheduled with course C261. P/NP or letter grade.

170. Introduction to Time-Series Analysis. (4) Lecture, three hours; discussion, one hour. Required: course 100C or 101A, and 100B. Exploration of standard methods in temporal and frequency analysis used in analysis of numerical time-series data. Examples provided throughout, and student implementation techniques discussed. P/NP or letter grading.

171. Introduction to Statistical Data Science. (4) (Same as Geography M186.) Lecture, three hours; laboratory, one hour. Required: course 10 from 12, 13, 15. Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.

173. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Required: course 100C (may be taken concurrently) or 101B. Geostatistics can be applied to many problems in other disciplines such as hydrology, traffic, air and water pollution, epidemiology, ecology, wildlife management, forestry, oceanography, meteorology, and agriculture and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze real spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C273. P/NP or letter grading.

175. Statistics for Spatial Data. (4) Lecture, three hours; discussion, one hour. Statistical theories used in analyzing spatial data. Study of three types of spatial data: geostatistical data, lattice data, and point patterns with applications of lattice and point pattern analysis of spatial data using open-source statistical software R. P/NP or letter grading.

180. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Required: course 100B, Mathematics 32B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering foundational aspects, prior and posterior distributions, and local 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 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 and reading assignments. Objectives and techniques of scientific writing and practice with different forms of professional writing. Analyses of quality of writing, including control, clarity, grammar, and mechanics. P/NP or letter grading.


184. Societal Impacts of Data. (2) Lecture, two hours. Required: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156. Consideration of impacts that data collected today have upon individuals and society. Rapid increase in scale and types of data collected has impacted commerce and society in new ways. Consideration of economic, social, and ethical, legal and political impacts of data, especially that collected on personal behavior. Topics include privacy and data protection, intellectual property and confidentiality, sample selection and algorithms, equality and anti-discrimination. Letter grading.

186. Careers in Statistics. (1) Seminar, one hour. Discussion of applications of statistics by weekly guest speakers. How statistics is applied to legal questions, economic decisions, arts, environment, and other fields, with some emphasis on career paths in statistics.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Independent 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) Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Statistics. (4) Tutorial, four hours. Limited to juniors/seniors. Internship in supervised setting in community agency or corporate setting. Students work with an 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
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Graduate Courses

200A. Applied Probability. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A. Limited to graduate statistics students. Simulation, martingale, and selected topics from queuing, reliability, speech recognition, computational biology, mathematical finance, epidemiology. S/U or letter grading.

200B. Theoretical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A. Limited to graduate statistics students. Simulation, martingale, and selected topics from queuing, reliability, speech recognition, computational biology, mathematical finance, epidemiology. S/U or letter grading.

200C. High Dimensional Statistics. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 200A. Methods of model fitting and parameter estimation techniques such as maximum likelihood fitting of generalized linear models. Exploration of broader regression/classification techniques that have been ubiquitous in machine learning literature, with special attention to regularization and kernelized methods. S/U or letter grading.

210A. Research Design, Sampling, and Analysis. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Prerequisites: courses 100A and 100B. Requisite: course 201A or 201B. Topics in modern survey methodology. Development of students’ own research. S/U or letter grading.

210B. Statistical Modeling and Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, and 201A. Methods of model fitting and parameter estimation techniques such as maximum likelihood fitting of generalized linear models. Exploration of broader regression/classification techniques that have been ubiquitous in machine learning literature, with special attention to regularization and kernelized methods. S/U or letter grading.

210C. Advanced Modeling and Inference. (4) Lecture, three hours; discussion, one hour. Strongly recommended requisites: courses 200B, 201B. Designed for graduate students. Introduction to advanced topics in statistical modeling and inference, including Bayesian Hierarchical models, missing data problems, mixture modeling, additive modeling, hidden Markov models, and Bayesian networks. Coverage of computational methods used and developed for these models and problems, such as EM algorithm, data augmentation, dynamic programming, and belief propagation. S/U or letter grading.

220A. Statistics Programming. (4) Lecture, four hours; discussion, one hour. Prerequisite: course 200A. Includes programming environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technologies/formats such as relational databases/SQ L 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.

220B. Matrix Algebra and Optimization. (4) Lecture, three hours; discussion, one hour. Recommended requisites: courses 200A, 200B, and 201B. Topics include programming environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technologies/formats such as relational databases/SQ L 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.

220C. Monte Carlo Methods for Optimization. (4) Lecture, three hours; discussion, one hour. 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.


225. Hierarchical Linear Models. (4) Lecture, three hours. Designed for students in statistics and other disciplines who want to perform data analysis using linear hierarchical 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.


227. Statistical Learning with Sparsity. (4) Lecture, three hours. Study of methods that exploit sparsity to help reduce underlying signal in data. S/U or letter grading.

228. Statistical Learning Theory. (4) Lecture, three hours. Introduction to theoretical analysis of machine learning methods, with emphasis on prediction problems. S/U or letter grading.


221. Graphical Models. (4) Lecture, three hours. Requisite: course 200A. Introduction to graphical models with applications in statistical modeling, machine learning, and inference. Common graphical models, such as undirected graphs, directed acyclic graphs, and ancestral graphs, for modeling conditional independence and causality. Methods and theory for structure learning of graphical models from observational and experimental data. S/U or letter grading.

221E. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. 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 students. Advanced methods and applications of causal statistical models, and introductions to advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course C116. S/U or letter grading.

221B. Statistical Analysis of Networks. (4) Lecture, three hours. Limited to graduate students. Introduction to analysis of social structure, conceived in terms of social relationships. Major concepts of social network theory and methods for social network analysis and description of social concepts such as role and position. Use of graphical representations of network information. S/U or letter grading.


M222. Spatial Statistics. (4) (Same as Geography M205 and Urban Planning M215) Lecture, three hours. Designed for graduate students. Survey of modern methods used in analysis of spatial data, implementation of various techniques using real data sets from diverse fields, including neuroimaging, geography, seismology, demography, and environmental sciences. S/U or letter grading.


M221A. Pattern Recognition and Machine Learning. (4) (Formerly numbered M231) (Same as Computer Science M276A) Lecture, three hours. Discussion, one hour. Designed for graduate students. Fundamental concepts, theories, and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computational biology. Topics include Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension, MDL, AIC), PCA/ICA/TCA, 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 200A, 201A. Introduction of mathematical tools 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. Requisites: 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 functional data analysis. 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, such as machine learning, natural language processing, computer vision, natural language understanding, and inferring mental states of others for in-
tuitive social interactions. Draw from statistical modeling, cognitive science, artificial intelligence, computer vision, and robotics.

M235. Modern Environmental Statistics. (4) (Formerly numbered 235.) (Same as Environment M235.) Lecture, three hours. Limited to graduate students. Recommended prerequisite: linear algebra. Focus on practical understanding and application of statistical tools for environmental datasets. Topics include brief overview of concepts in probability, distribution theory, working with and analyzing regression models, multidimensional data exploration, time series analysis, and spatial modeling. Draws upon scientific literature and examinations of analyses of real-world datasets. Small groups complete and present project analyzing relevant dataset of choice. S/U or letter grading.

C236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 200A or 200B. Designed for graduate students. Introduction to 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.

238. Vision as Bayesian Inference. (4) Lecture, three hours. Requisite: course 100A or 200A. Formulation of vision as Bayesian inference using models developed for describing sensorimotor systems. Applied to statistics, they define ideal observer models that can be used to model human performance and serve as a benchmark. S/U or letter grading.


M252. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M252 and Psychology M252L.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling; theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured-equation models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications vary according to interests of students. Letter grading.


M244. Statistical Analysis with Latent Variables. (4) (Same as Education M231E.) Lecture, three hours. Requisites: Education 231A, M231B. Introduction to general latent variable modeling framework. Important special cases of the framework include confirmatory factor analysis, structural equation modeling, 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.


246. Statistical Model Selection. (4) Lecture, three hours. Preparation: basic knowledge of calculus, linear algebra, and computer programming. Modern methods for constructing and evaluating statistical models, including non-Bayesian and Bayesian statistical modeling approaches. Discussion of theoretical parts and data analysis. Letter grading.

C248. Applied Sampling. (4) (Same as Epidemiology M216.) 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. Emphasis on method of sampling from finite populations, sources of sampling and estimation bias, and methods of generating efficient and precise estimates of population characteristics. Prerequisites: one of Statistics M200B, 200C or M231B, and Statistics M231C, and exposure to real data and hands-on laboratory exercises. Concurrently scheduled with course C155. S/U or letter grading.

M250. Statistical Methods for Epidemiology. (4) (Same as Epidemiology M211.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Enforced prerequisites: Epidemiology 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical display of data. Basic methods introduced in Epidemiology 200B and 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

M254. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M223 and Biomatics M271.) Lecture, three hours; discussion, one hour. Preparation: course 100A or 200A or Biomatics M221. Introduction to statistical methods developed and widely applied in several branches of computational biology. Focus on multiple 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.


271. Probabilistic Models of Visual Cortex. (4) Seminar, three hours. Requisites: course 100B or Mathematics 33A. Recommended: Computer Science 180. Introduction to the use of probabilistic models of mammalian visual cortex, with topics in low-, mid-, and high-level vision. Discussion of relevant evidence from anatomy, electrophysiology, imaging (e.g., fMRI), and psychophysics. Concentration on the general problem of modeling of these phenomena, taking into account recent progress in probabilistic models of computer vision and development 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, oceanography, meteorology, engineering, and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze real spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C173. S/U or letter grading.


285. Seminar: Research Topics in Statistics. (2 to 4) Seminar, one to three hours. Topics in various statistical areas by means of lectures and informal conferences with staff members. May be repeated for credit. S/U grading.

M286. Seminar: Statistical Problem Solving for Population Biology. (2) (Same as Ecology and Evolutionary Biology M286.) Seminar, two hours. Designed for graduate students. Statistical solutions to complex data set problems and/or problems encountered by biology graduate students in their own research. S/U or letter grading.

287. Seminar: Gene Expression and Systems Biology. (3) Seminar, two hours. Preparation: Designed for graduate students (open to undergraduate students with consent of instructor). With high-throughput technologies such as genomic sequencing, microarray gene expressions, Chromatin-Immunoprecipitation DNA chip (ChIP-chip), and mass spectrometry (MS/MS) proteomics, scientists are collecting genetic, genomic, and pathway data at rates far beyond imagination one decade ago. The sheer magnitude of data produced cannot be analyzed and understood without highly sophisticated computational methods guided by mathematical and statistical principles. Cutting-edge genomics research from statistical data analytic point of view. S/U or letter grading.

290. Current Literature in Statistics. (2) Seminar, one hour. Topics in various statistical areas by means of lectures and informal conferences with staff members. S/U or letter grading.

291XP. Service Learning for Graduate Statistical Consulting. (4) (Formerly numbered 291SL) Research group meeting, two hours; fieldwork, two hours. Exposure to realistic statistical and scientific problems that appear in typical interactions between statisticians and researchers, with lectures centered on case studies presented by faculty members and invited speakers from business and academic fields. Applied regression analysis and design of experiments, together with basic statistical programs. Presentations and written reports required. S/U or letter grading.

292. Graduate Student Statistical Packages Seminar. (1 to 2) Seminar, two hours. Introduction to various statistical packages. How to handle data in different packages (input, output, data management, treatment of missing data), general syntax of different programming languages, and good practice for writing own statistical functions. S/U or letter grading.

294. Scientific Writing. (2) Seminar, two hours. Development of oral and written presentations of statistical data. Objectives and techniques of scientific communication and oral and written presentation. Tools to pursue both theoretical and applied research in causality. S/U or letter grading.
297SL. Service Learning and Community Learning 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 nongovernmental 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.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel enrollment granted, unless assistant professor 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. Addressing issues including planning, collection, data exploration, formal inference, and model checking. 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 theorem. Letter grading.


405. Data Management. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Exposure to several statistical tools and techniques for organizing data in these languages. How to use and interpret results of important functions in R packages. Statistical applications involve linear and non-linear regression, shrinkage methods, density estimation, non-parametric methods, clustering, classification, and resampling. Graphics and real examples used to illustrate techniques. Analyses of both real and simulated data. 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 about the system under study while minimizing costs. Topics include role of randomization and blocking, comparing two or more treatments, randomized blocks, factorial design, Latin square designs, fractional factorial designs, response surface designs. Letter grading.

420. Causal Inference in Social Science Practice. (4) Lecture, three hours; discussion, one hour. Requisites: course 400. Recommended requisites: courses 401, 402, 403, 404, 405. Limited to Master of Applied Statistics students. Variety of designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variables, regression discontinuity designs, and sensitivity analysis. Basic skills from probability and statistics. Applications drawn from various fields including political science, psychology, economics, public policy, and health. Students develop apply to any discipline in which investigators seeks to make causal statements but cannot fully randomize treatment. 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 statistics is 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.

422A. Data Visualization. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, 101A, or equivalent level of discipline. Tools for data visualization and dashboard design. Directed toward students who are fluent in English communication or for whom English is not their language. 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 computing is 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. Students present statistical results for audiences ranging from business leaders to media outlets to academic statisticians.


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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.


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 eight-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
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 preparation 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 requisite course 1885B. 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. Culumating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.
Lecturers
Cheryl Baxter-Ratliff
Sara R. Clement, MFA
Perry M. Daniel, MFA
David M. Gorshein, PhD
Leanora Martino, MA
Angela R. Scott, MFA
Jonathan Snipes
Natsuo Tomita
Jonathan Wang, BS, MSOM

Adjunct Professors
Dan T. Belzer, MFA
F. Nicholas Gunn, Retired
Peggy Hickey-Perez
Linda Kerns
Jeremy L. Mann
Paul M. Wagar

Adjunct Associate Professors
Marilyn E. Fox
Ed J. Monaghan, MFA
Judith E. Moreland, MFA

Academic Administrator
Jonathan Burke, MFA

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 explores 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 areas of film, digital media, and television, and, schedules allowing, take graduate courses from across UCLA.

Undergraduate Major
Theater BA
The Theater BA provides students with a liberal arts education by combining critical study of theater and performance with experiential practice in one or more of its component parts. Students explore acting, design, directing, formal and textual analysis, playwriting, and production to build a foundation for future creative work. Specialized and advanced training is available to prepare students for a variety of careers, further training, or graduate study. At the upper-division level, students may choose from an array of advanced elective courses including those in acting, design and production, directing, musical theater, playwriting, theater history, and dramatic literature. Internships in areas such as producing and casting are also available.

Capstone Major
The Theater major is a designated capstone major. Theater capstone courses represent independent student scholarship and/or a high degree of artistic achievement in each of the undergraduate areas. Capstone courses are intended to be the culmination of all the broad educational courses and core foundational courses that a student has taken. Group participation in the creation and production of student projects is core to the curriculum. Capstone courses vary by area and require individual projects or performances, a major artistic contribution to a theater production, or an individual course of study resulting in a research paper. Through their capstone work, students demonstrate general knowledge and specialized skills, successfully relate their experience in a studio, production, or fieldwork setting, communicate effectively orally and in writing, and engage with a community of artists and scholars presenting theatrical work.

Learning Outcomes
The Theater major has the following learning outcomes:

- Demonstrated broad knowledge of fundamentals acquired through coursework, including general knowledge of the art form and skills in a specialized area of study
- Successful relation of experience in a studio, production, or fieldwork setting
- Engagement with a community of artists and scholars presenting theatrical work
- Effective oral and written communication

Entry to the Major
Admission
All applicants must meet the admission standards of UCLA and the departmental screening process. Applications are accepted only in November for admission to the following fall quarter. There are no mid-year admissions. Students must submit required supplemental materials directly to the Theater Department. If requested by the department, applicants must also sign up for an audition and/or interview online. There is a $90 fee for all interviews/auditions.

Applicants interested in one of the emphases in acting, design and production, integrated studies (including critical studies, directing, and playwriting) or musical theater may submit materials for consideration in that area.

Requirements
Preparation for the Major
Required: Theater 11, 12, 13, 14A, 14B, 14C, 50 (must be taken for 4 units total).

The Major
The major consists of Theater 101A, 101B, one course from 102A through 113, 131C or 163C or 180 (capstone seminar), one course (4 units) from 150, 173A, 173B, 174B, or 174C, and 34 upper-division theater elective units.

Policies
The Major
Up to 8 units of upper-division credit in the Department of Film, Television, and Digital Media may be included in the 34-unit theater elective requirement.

 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 an emphasis or 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 for reflecting the human experience. The minor consists of a selection of lower-division courses that expose students to the fundamentals of theatrical production, as well as acting, writing, and directing. Upper-division courses offer more focused study of those areas, as well as theater design, history, education, and theater of non-Western cultures.

Admission
To enter the minor students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one approved UCLA theater minor course with a grade of C or better, and file a petition at the Student Services Office, 103 East Melnitz Building, 310-206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or College.
The Minor

Required Lower-Division Courses (6 to 10 units): Theater 10 and one course from 15, 20, 28A, 28B, 28C, 30.

Required Upper-Division Courses (22 to 27 units): Theater 150, one course from 102A through 113, and four courses selected from 117, 118A, 118B, 118D, 120A, 120B, 120C, 121, 123, 128A, 130, 136, 138, 139, C146A, C146B, 149, 195.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to department approval.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Theater MFA

Requirements

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

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 Ch. (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 style of tai chi. Courses in performance practice continue emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated once for credit. Letter grading.

3. Aikido. (1) Studio, two to four hours. Designed for Theater majors. Introduction to basic stance, falls, throws, and poses of 20th-century martial art. Aikido. Courses in performance practice continue 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 events. Introduction to interpretation of drama through art 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 readings from contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical events, including interpretation of drama through performance. Examination of various forms of theatrical performance and styles of expression, and development of acting, voice, and movement skills. Letter grading.

13. Play Reading and Analysis. (5) Lecture, three hours. Provides background for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater’s subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.

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, design elements, costuming, and sound. Both technical and aesthetic groundwork for further study. Letter grading.

15. Introduction to Directing. (4) Lecture, two hours; studio, four hours. Investigation of role of director in theatrical production and theories of play direction, with emphasis on analysis and interpretation of dramatic work and its realization in performance. 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. 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 audience. P/NP or letter grading.


23A. Introduction to Musical Literacy for Singing Actors. (2) Formerly numbered 23.) Studio, three hours. Reading and translating musical notation in treble clef; defining common musical terminology; basic rhythm-reading and diatonic sight-singing in all major keys. Letter grading.

23B. Advanced Musical Literacy for Singing Actors. (1) Studio, three hours. Requisite: course 23A. More advanced sight-singing, incorporating minor keys, chromatic scales, internal key changes, and bass clef; exploration of song form, musical theater score formats, and harmonic/contrapuntal singing. Letter grading.

24A. Actor’s Voice. (2) Studio, three to four hours. Study of basic vocal technique for actor, with emphasis on 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 25A.) Studio, three to four hours. Study of basic kinesiology principles of body in performance. Includes strategies of movement initiation and organization, as well as performance of movement scores to support actor’s craft. Letter grading.

26. Alexander Techniques. (2) Studio, three hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to 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 using American vaudeville traditions, acts, and performers as historical base to experience importance of rhythm, timing, delivery, speech, and body language in all styles of comedy; to find value of improvisation/imitation as well as 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-28B. Acting, Voice, and Movement Workshops I. (2 each) Studio, three to six hours (28A-28B) and six hours (28B-F). Study of beginning acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

30. Dramatic Writing. (4) Studio, three hours. Intended for Theater minors and other nonmajors. Exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated once. Letter grading.

34A-34B-34C. Ballet II. (1-1-1) Studio, five hours. Development of dance and movement techniques for musical theater. Letter grading.

35A. Group Singing Techniques. (1) Studio, three hours. 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 musicality while preserving vocal health. Letter grading.

35B. Advanced Group Singing Techniques. (1) Studio, three hours. Requisite: course 35A. Advanced singing techniques, focusing on strategies for producing consistently dynamic, efficient, and musical vocal sound, and how to build stamina and range while preserving vocal health. Letter grading.

50. Theater Production. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including stage management or member of production crew. May be repeated for maximum of 8 units. Letter grading.

72. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three hours. Exploration and laboratory experience in one or more of various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be taken for maximum of 8 units. Letter grading.
Upper-Division Courses

101A. Global Histories of Theater and Performance I. (6) Lecture, three hours; discussion, one hour. Introduction to histories of theater and performance from across world, with emphasis on ancient world through 18th century. Introduction to global aesthetic theories and historical implications of work, and aesthetic and ethical exploration of development of African American playwrights and their significant involvement in creation of diversified American theatrical tradition. 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 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 postmodernism. 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. Letter grading.

103A. African American Theater History: Slavery to Mid-1980s. (5) Lecture, three hours. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slave period to mid-1800s. Letter grading.

103B. 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.

103C. Origins and Evolution of Chicano Theater. (5) (Same as Chicano/o and Central American Studies M103C) Lecture, three hours. Designed for juniors/seniors. Exploration of development of Chicano theater from its beginnings in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s). P/NP or letter grading.

103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (Same as Chicano/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.

103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) (Same as African American Studies M103E) Lecture, three hours. Survey and analysis of African American plays from Harlem Renaissance to Black Arts Movement era. Examination of sociocultural 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 African 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 of region or arts required. Land variously known by names of Zion, Holy Land, Palestine, and Israel is not just one place. It is a realm of imagination, envisioning and re-envisioning throughout history. It is at once real and ephemeral, sturdily and fragile, all-enduring and ephemeral. Examination of selected works of literature, performance, visual arts, film, and media by Israelis and Palestinians, as well as the work of 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.

103M. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) (Same as African American Studies M103M) Lecture, three hours. Examination of Black theater from Black Arts Movement of 1960s through the social and historical implications of work, and aesthetic experimentation of contemporary African American playwrights and movements. Letter grading.

104D. New Playwrights, New Playwriting. (5) Seminar, three hours. Focus on development of working skills of manuscript analysis; development of working vocabulary of dramaturgical concepts; exploration of different styles of acting, directing, and design that playwrights of today draw from. Letter grading.


104F. History of Design Décor Part II: Architecture and Décor—Industrial Revolution to 21st Century. (4) (Same as Chicano/o and Central American Studies M104F) Lecture, four hours. Study of post-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 C404F. Letter grading.


106. History of American Theater and Drama. (5) Lecture, four hours; discussion, one hour (when scheduled). Survey of the works of American drama, the artistic and historical landmarks of American theater history. P/NP or Letter grading.

107. Drama of Diversity. (5) Lecture, three hours; discussion, one hour (when scheduled). Examination of the representation of diversity in American society as manifested in dramatic works and theatrical presentations. P/NP or Letter grading.


109. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Honors Collegium M109) Lecture, four hours; discussion, one hour (when scheduled). Survey of the works of American drama, the artistic and historical landmarks of American theater history. P/NP or Letter grading.


111. Creating Theatrical Season. (5) Seminar, three hours. Limited to sophomores/junior/senior Theater majors and minors. Students research and analyze contemporary issues facing theater and entertainment industries, and then address them through research and proposing Theater Department’s next annual production calendar. Introduction to process of searching for and vetting new plays and musicals, addressing current trends and issues through concrete planning and programming. Topics and discussions related to current issues vary by term. May be repeated for credit. P/NP or letter grading.
with technologists, for self-study of new technologies, provides a solid basis for engaging in future collaborations and modern approaches to artificial intelligence. Of note, familiar with digital technologies, theoretical background for engaging with social context of these technologies. Concurrency scheduled with course C212. P/NP or letter grading.

113. Special Topics in Theater and Performance Studies. (6) Lecture, three or four hours. Consists of four parts, period, genre, or subject to be studied in specific term. May be repeated for credit. P/NP or letter grading.

114. Variable Topics in Performance and Disability Studies. (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 marksmanship, dance and martial, 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 dramatics subject to the unique characteristics of participants and relationships of arts to traditional disciplines of learning. May be repeated once for credit. P/NP or letter grading.

118C. Interactive Theater. (4) Laboratory, four hours. Active, self-involving process of theater experiences and games designed to examine racial stereotypes, sexual harassment, gender discrimination, and other issues that divide members of campus community, as well as community 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 empathy 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. Required courses 118A, 118B. Development of K-12 teaching materials to integrate theater with specific core curricula. Collaboration with classroom teacher to identify 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 incorporation of ArtsBridge curriculum. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate California Teaching Content Standards, objectives, motivation, detailed explanation of lesson plan, and ideas for assessment. Classroom work culminates in thoroughly documented final project evaluated by ArtsBridge student, classroom teacher, and UCLA faculty member.

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. Letter grading.

121. Acting Workshop. (2) Studio, to be arranged. Requisite: course 20. Courses 160, 163A, 163B, and 165C may be taken concurrently. Workshop that provides students the opportunity to rehearse, perform, and critique. P/NP or letter grading.

121B. Acting Workshop. (2) Studio, to be arranged. Exploration of use of voice, acting class, and character study as approaches to acting. P/NP or letter grading.

122. Character Development through Makeup and Hair Design. (2) Studio, four 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. Letter grading.


125. Advanced Creative Dramatics. (3 to 4) Lecture, three to four hours. Study and practice of acting techniques, supported by history of each technology and its application in arts, key technological concepts, and basic production processes. Consideration of uses in large scale professional production as well as low-budget and do-it-yourself approaches. Platforms studied are selected for their importance to field, timeliness, and relationship to department season. Students engage with platforms as actors, working with instructor and selected scenes. Students explore character development, different relationships to audience and camera, and engagement/synchronization with virtual setting. Students identify techniques collaboratively in concert with study of experiences of other actors, directors, and other creators with platforms. Letter grading.


127. Performance for Virtual Environments. (4) Lecture, two hours; discussion, one hour; laboratory, two hours. Exploration of performance in virtual environments through hands-on experimentation and scene work using two or more prominent technological environments supported by history of technology and its use in arts, key technological concepts, and basic production processes. Consideration of uses in large scale professional production as well as low-budget and do-it-yourself approaches. Platforms studied are selected for their importance to field, timeliness, and relationship to department season. Students engage with platforms as actors, working with instructor and selected scenes. Students explore character development, different relationships to audience and camera, and engagement/synchronization with virtual setting. Students identify techniques collaboratively in concert with study of experiences of other actors, directors, and other creators with platforms. Letter grading.

128A. Acting, Voice, and Movement Workshops II. (2) Studio, four to six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. May be repeated for maximum of 12 units. Letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (2) 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 focus on writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units intended for leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.


of conceiving, researching, and developing full-length plays. Students begin drafting full-length plays. May be repeated twice for credit. 131B. Full-Length Play Part II. Requisite: course 131A. Continuation of writing of full-length plays begun in course 131A. May be repeated twice for credit. Letter grading.


C133A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. Guided process of script development, with emphasis on communication, artistic growth, and professional processes. May be taken for maximum of 8 units. Concurrently scheduled with course C433A. Letter grading.


134G. Dance for Musical Theater: Ballet. (1) Studio, three to four hours. Designed for Theater majors. Intermediate level course. Development of skills and 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 techniques necessary to be competitive in field of professional musical theater. Exploration of styles and techniques for singing gospel and rhythm and blues music, with solo and group improvisation as foundation. Letter grading.


135C. Musical Theater Vocal Styles: Legitimate/Opera. (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 techniques necessary to be competitive in field of professional musical theater. Exploration of styles 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 techniques necessary to be competitive in field of professional musical theater. Exploration of styles 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 Character 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 concepts for acting and singing from actors’ perspective. 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 twice for credit. Concurrent 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. Covers paperwork 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 objectives of the MSB programming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C440B. 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, automation, and reproduction of dialogue, effects, and music tracks for theater and film. Credit 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 rendering 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 C444B. Letter grading.

144D. Music Technology for Sound Design. (4) Lecture, three hours; laboratory, one hour. Music for non-musicians. Illustrated with examples from point of view, 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) Lecture, four hours; laboratory, five hours. Introduction to performance design and prototyping of interactive theatrical events. Concurrently scheduled with courses C446A-C446B. Letter grading.

C146A. Exploration of original forms of media-rich entertainment experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. C146B. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit.

147A. Drafting. (4) Studio, four hours. Development of visual communication skills through drafting. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

148. Special Problems in Performance Technical Theater. (4) Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

149. Introduction to Design. (5) Lecture, three hours. Exploration of interpretive design, and style, and the effect 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 management of production logistics, including but not limited to costume breakthroughs, creating budgets, and overseeing them, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for production. Practice and professional resiliency to move from abstract to substantive problem solving, maintaining creative and collaborative 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 designer since early days of film industry. Role of costume designer and contribution of costume design to 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 with set design and filmmaking, and what it takes to bring characters to life. Skills needed to effectively costume short narrative films, including script breakdown, collaboration with directors and actors, and production planning. 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 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 C454A. Letter grading.

C154B. Sound Design for Musicals. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing needed to complete show. Tuning space, equalization, and practice in preparation of theater sound design project. Students direct one-act play or project. 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.

C154D. Script Analysis for Sound Design. (4) Formerly numbered C144C.) Lecture/studio, four hours. Requisites: courses C154A, C154B. Study and practice in preparation of theater sound design with emphasis on analysis of script and score, concept development of design, and techniques to realize design. Concurrently scheduled with course C454D. 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 course C455A. Letter grading.

C155B. Graphic Representation of Design: Multi-media Rendering. (2) Studio, four hours. Study and practice of 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, 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 final rendering with digital techniques. Students design projects 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. Studio of model for presentation of scenic design from initial working prototypes to finished models. Examination of 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: Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Studio of model for presentation of costume designs from initial working prototypes to finished costumes. Examination of variety of materials and techniques for execution of model. 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 costume and other design elements. 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. Requisite: course 147A. Investigation of drawing and editing techniques, drawing floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C456A. Letter grading.


C156G. Virtual Reality Rendering for Film. (2) Studio, four hours. Requisites: courses C155C, C155H, C155A, C155B, C155C. Preparation: basic 3D modeling and rendering skills. Students learn how to translate 3D models developed in Maya into Unreal engine virtual game environment, and utilize this platform as a powerful tool for development, presentation, and staging of film and theater set designs. Students primarily use Autodesk Maya and Unreal gaming engine, but are also introduced to Zbrush, Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C456G. Letter grading.


C160. Fundamentals of Play Direction. (5) Lecture, two hours; laboratory, four hours. Requisite: 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 rehearsed conditions. P/NP or letter grading.

C163A. Directing for Stage. (4) Lecture/studio, four hours. Requisite: course 15. Intensive development of primary directing skills, 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.


C163C. Directing for Stage. (4) Lecture/studio, four hours. Requisite: course 15. Developing understanding of the presentational, interactive, and interpretive elements of the contemporary theatre through text analysis and examination of performance of works in a variety of settings. Letter grading.

C163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of directing techniques in production of short play or playwriting project. Students direct scenes under laboratory conditions in alternative stage configurations. Letter grading.

C167A. Career Preparation for Actor. (2) Lecture/studio, three to four hours. Requisite: course 116B. Preparation for professional career as actor in film, television, theater, and commercials. Topics include form 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 Zbrush, Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C457A-C157B-C157C. Letter grading.

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audition preparation, head shots, résumés, agents, managers, casting directors, producers, unions, survival skills, professional development. Letter grading.

167B. Audition Preparation for Singing Actor. (2) Lecture/studio, three hours. Requisite: one course from 134A through 135F. Audition preparation for singing actors, reviewing various techniques to prepare for and successfully execute professional musical theater auditions. Letter grading.

170. Design and Production Project. (4) Laboratory, eight hours. Requisites: courses 14A, 14B, 14C. Experience as stage manager or designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs, or stage management in production. May be repeated once for credit. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation as actor or stage manager in 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) Laboratory, to be arranged. Creative participation in realization of production elements related to public presentation of performances. May be taken for maximum of 4 units. P/NP or letter grading.

172. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Experience in producing 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. Requisites: courses 14A, 14B, 14C. Laboratory experience as assistant designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as designer, including preparation and realization of scenic, lighting, costuming, or sound designs. May be repeated twice. Letter grading.

174A. Stage Managing Techniques. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Professional duties of stage manager, including participation as assistant stage manager in preparation, rehearsal, and performance phases of productions. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 12 hours. Requisite: course 174A. Laboratory experience in professional duties of stage manager, including participation as assistant stage manager in production, rehearsal, and performance phases of productions. May be repeated once for credit. 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) Laboratory, three to eight hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.

C176A-C176B-C176C. Production Practice in Theater with Emerging Technologies I, II, III. (4–4–4) Studio/laboratory, four to six hours. Collaborative creative and technical development of all aspects of the theatrical production incorporating emerging and/or advanced technologies and multimedia. Lecture and public presentation. Offered as series of up to three courses in cases where multiple quarters are needed to prepare production. Concurrently scheduled with course C176D-C176E-C176F. Letter grading.


M178. Film and Television Acting Workshop. (2) (Same as Film and Television M177.) Laboratory, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different performance 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. Requisites: courses 101A, 101B. Preparation of conceptual or creative project to provide culminating experience in production of creative or research work. May be repeated twice for credit. Letter grading.

181. Career Development for Actors. (2) Lecture, three hours; fieldwork, three hours. Limited to seniors. Study of business processes, career entry, and development 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. Role of Manager 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.

M187. Art Alive: Art and Improvisation in Museums. (4) (Same as Honors Collegium M116.) Seminar, four hours. Offered in collaboration with Los Angeles County Museum of Art (LACMA). Interpretation of art in collection through acting, dialogue, movement, and music. Research into history and art history and production of one performance piece required. P/NP or letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Letter grading. Individual study in regularly scheduled meetings with faculty mentor to design and conduct 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. (1) Tutorial, to be arranged. Enforced corequisite: course 188SB. Letter grading. Individual study in regularly scheduled meetings with faculty mentor to design and conduct 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. (1) Tutorial, to be arranged. Enforced corequisite: course 188SC. Letter grading. Individual study in regularly scheduled meetings with faculty mentor to design and conduct usie seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


189. Community or Corporate Internships in Theater, Film, and Television. (2, 4, or 8) Tutorial, eight, 16, or 24 hours. Limited to juniors/seniors. Internship at various theaters, studios, or entertainment organizations accentuating creative contributions, organization, and work of professionals in their various specialities. 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 member. Supervised independent research or investigation. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


206. Themes in World Theater and Drama. (5) Seminar, four hours. Designed for graduate students. Selected topics in world theater history, drama, production, and/or architecture of major periods. May be repeated four times for credit. S/U or letter grading.

208C. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. Requisites: courses 208A, 208B. Demonstration of competence in practice of dramaturgy through completion of approved dramaturgical assignment. May be taken for maximum of 12 units. Letter grading.

210. Topics in World Theater and Drama. (5) Seminar, three hours. Designed for graduate students. Investigation of selected topics in world theater, drama, production, and architecture. May be repeated four times for credit. S/U or letter grading.

C212. Emerging Technologies and Their Uses in Live Performance. (4) (Formerly numbered C437.) Seminar, four hours. Survey of major emerging and contemporary technologies and their potential uses in improving on live performance, including both real and virtual reality to electronic textiles, Internet of Things, and Modern approaches to artificial intelligence. Offers solid basis for engaging in future collaborations with technologists, for selecting technologies, and, for those already more familiar with digital technologies, theoretical background for engaging with social context of these technologies. Concurrently scheduled with course C112. S/U or letter grading.

216A. Approaches to Representation. (5) Lecture, three hours; laboratory, one hour. Overview of strategies of representation from classical aesthetic theories to postmodern deconstructions of them. May be repeated once for credit. Letter grading.

216B. Approaches to History. (5) Lecture, three hours; laboratory, one hour. Overview of key methodologies, theories, and debates in historiography of theater and performance linked to plays and performances appropriate to approach. Letter grading.

216C. Approaches to Identification. (5) Lecture, three hours; laboratory, one hour. Overview of key theories, methods, debates, and performance texts of identification in relation to unresolved questions about race, gender and sexuality. Letter grading.

220. Graduate Forum. (1 to 4) Seminar, one to four hours. Limited to graduate theater students. Presentations and discussion of issues informing and affecting contemporary theater. May be repeated four times for credit. S/U or letter grading.

221. Introduction to Performance Studies. (5) Seminar, three hours. Investigation of performance as sustaining practice in traditional theatre, dance, music, and as lens to focus thinking about human experience in fields such as philosophy,

C222. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of importance of makeup and hair design in film. History and politics of makeup and hair fashion and motion pictures. Collaboration of makeup artists and hairstylists with costume designer, actors, production designer, and director to conceptualize people in script. Makeup artist and costume department roles in current film, television, and theater productions and skills needed to design makeup and hair for film and television. Concurrently scheduled with course C122. Letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Film and Television CM229.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be taken for credit. Concurrently scheduled with course CM129. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theater. (4 to 6 each) Lecture, three hours; studio, two hours. Designed for graduate students. Letter grading. 230A. Special emphasis on process of strategy and design 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 strategies, dramatic structure, and techniques of given and required materials of selected contemporary American plays leading to guided completion and critique of student work. Letter grading.

231. Special Topics in Playwriting. (4) Lecture, three hours. Analysis and practice of various aspects of playwriting. Variable content selected from topics such as comedy writing, docudrama, experimental theater, writing for alternative audiences, or children’s theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Designed for graduate students. Critical and constructive strategies for reading and evaluating the work of playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit. S/U or letter grading.

242. Introduction to Design in Production. (4) Lecture or studio, four hours. Introduction to process of design for entertainment, collaborative role of designer, and realization of designs in production. May be repeated once for credit. Letter grading.

243A-243B-243C. Scenic Design. (4-4-4) Studio, four hours. Advanced study and practice in scenic design for theater. Imaginative as impetus for design, text analysis, metaphor, and conceptualization. Investigation of process, composition, and design leading to visual presentation of design. May be repeated once for credit. S/U or letter grading.

244A. Advanced Theater Production. (2 to 8) Studio, 12 to 24 hours. Designed for graduate students. Creative participation in preparation and presentation of theatrical production. May be taken for maximum of 8 units. Letter grading.

244B-246B-246C. History of Costume. (4-4-4) Lecture/studio, four hours. Designed for graduate students. 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 design 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.


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 work, 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. Application of directorial techniques to student play project. Students direct one-act or play 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 once for credit. Letter grading.

265. Modern Theories of Production. (4) Lecture, four hours. Examination of modern theories of production from emergence of director in 19th century to present. Investigation of different responses to problems of creating vital theatrical event in context of ongoing evolution of theater as art form. Examination of contribution of significant directors and movements; relation 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 theatrical 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 and 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. Concurrently scheduled with course C164G. Letter grading.

264I. 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 with global emphasis. Concurrently scheduled with course C164I. Letter grading.

264J. History of Design for Performance Production Part II: Industrial Revolution 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. Concurrently scheduled with course C164J. 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 curricular and classroom instruction at UCLA. May be repeated for credit. S/U grading.

C404E. History of Design Décor Part I: Architecture and Decor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of post-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 C140E. Letter grading.


C404H. History of Design for Performance Production Part II: Industrial Revolution 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. Concurrently scheduled with course C140H. Letter grading.

C404I. 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 with global emphasis. Concurrently scheduled with course C140I. Letter grading.

C404J. History of Design for Performance Production Part II: Industrial Revolution 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. Concurrently scheduled with course C140J. Letter grading.

C406A. Advanced Acting I. (4) Studio, five to 13 hours. Advanced training for actor, challenging body’s core, and energy and concentration needed for performance. Deepening awareness of personal, physical idiosyncrasies, acting tendencies, and body and breath control. Letter grading.

C406B. 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 feedback on character being played. Letter grading.

C406C. 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 subtle differences between acting for stage and camera. Letter grading.


C412B. 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,
choral breathing awareness, kinesthetic relationship of performer's body in space, and relationship of emotion to movement, and voice. Letter grading.

421C. Advanced Acting and Craft for Actor. (4) Studio/laboratory, six hours. Advanced acting with focus on craft, inclusive of physicality of thought, details of related rhythm and relating movement to text, and audition technique. Letter grading.

422. Advanced Acting for Theater, Film, and Television. (8 to 12) Studio/laboratory, eight to 12 hours. In-depth training. (For credit, advanced acting with attention to movement, and voice. Letter grading.

423. Advanced Acting for Virtual Environments. (4) Studio, six to eight hours. Synthesizing gesture, action, and characterization into scene work for virtual reality, motion capture, and other emerging performance capture techniques. May be repeated twice for credit. Letter grading.

424A. Advanced Voice and Text. (2) Studio, three to six hours. Development of voice for stage, including exercises for relaxation, breathing, bodily alignment, diaphragmatic breathing, head and chest resonance, and warm-up. Application of vocal techniques on contemporary and classical texts, including U.S. dialects and scan of verse in Shakespeare. Letter grading.

424B. Vowels and Voice Placement. (1) Studio, three hours. Requisite: course 424A. Builds on course 424A. Introduction to diphthongs and triphthongs; development of forward sound, including consistent thought energy. Exercises to develop, and text to implement forward sound, including consistent thought energy. Text and warm-up exercises also covered. Letter grading.

424C. Voice in Action. (1) Studio, three hours. Requisite: course 424A. Physical explorations and techniques for breath sourcing and increasing awareness of voice in action. Sensory awareness work, Linklater and Barry techniques, and Knight-Thompson model may also be explored. Letter grading.


424E. Vocal Strength and Flexibility. (1) Studio, three hours. Requisites: courses 424A, 424B. Corequisite: course 424E. Focus on articulation: work consonants, nasal continuants, plosives, fricatives, continuants, laterals, and glides, as well as pitch and safest expanding vocal range and pitch. Exploration also of warm-ups, actions with vocal choices, and exercises with monologues. 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. Text work focuses on developing vocal and physical flexibility and techniques designed to keep on exploring vocal sound and ways to 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 vivid vocal engagement to support dynamic expression of demanding texts, with attention to varieties of tempo, volume, pitch, resonance, range, etc. Letter grading.


424I. Phonetics, Diactes, and Accents. (1) Studio, three hours. Use of phonetics to enhance actor’s ability to create character using dialect and accents. Cullinating dialect presentation project required. Letter grading.

424J. Acting for Microphone. (2) Studio, four to six hours. Techniques including textual analysis and character work in art and craft of acting for microphone. Letter grading.

425A. Advanced Movement I. (2 or 4) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.

425B-425C. Advanced Movement I. (2 or 4 each) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. Awakening of imagination while exploring worlds of ritual, animal, conceptual, and modern dance movements. Letter grading.

425D. Advanced Training Intensive. (2) Studio, 12 to 15 hours per week for four weeks. Advanced training class, challenging body’s core, energy, and concentration needed for performance. Deepening awareness of personal physicality, acting tendencies, voice, and the actor’s relationship to movement, and voice. Letter grading.

425E. Advanced Conditioning and Combat for Theater, Film, and Television. (2) Studio, six hours. Body conditioning, basic striking skills, tumbling, breakfalls, and training for actors in one or more movement, dance, or combat disciplines: capoeira, martial arts, ballet, ballroom, period dance, circus techniques. Letter grading.

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 actor, music, and dance. Advancement of physical training of individual actors to their maximum potential. Experience in techniques and discovery of origins of variety of acrobatic and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.

425G-425H-425I. Advanced Movement III. (2 or 4 each) Studio, three to six hours. Advanced physical training for actors in one or more movement, dance, or combat disciplines: capoeira, martial arts, ballet, ballroom, period dance, circus techniques. Letter grading.

426A-426B-426C. Alexander Techniques. (2 or 4 each) Studio, three to six hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of anatomical method of Franois Mzie and Thrsse Berthet and de-structuring/restructuring work of Catherine Fitzmaurice. Letter grading.

426F. Advanced in Playwriting. (4 to 8 each) Lecture, three hours. Limited to MFA playwriting program students. Guided completion of full-length scripts for stage. 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 alternative audiences, adaptation from stage to screen, children’s theater, or improvisational 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. Designed for graduate students. Guided process of script development, with emphasis on communications, 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) Formerly numbered C433B.) Lecture, three hours; studio, four to 24 hours. Designed for graduate students. Guided process of script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Letter grading.

435A-F-435A-F. Problems in Advanced Writing for Stage. (0–0–2) Lecture, two hours. Limited to MFA candidates. Review discussion and critique of projects for each of the four semesters required for MFA. Letter grading.

C440A. Sound Mixing. (4) Studio, four hours. Focus on sound design for theater. Covers how to mix on a complete show. Tuning space, equalization, and some advanced projects involving programming and mixing on various consoles. May be repeated twice for credit. Letter grading. Concurrently scheduled with course C140A. Letter grading.

C440B. Advanced Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language to control sound and video. May be repeated 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 text and character analysis, and 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. Letter grading. May be repeated twice 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/ thrust theaters, multimedia presentations, lighting patterns, and moving scenery. 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. Scenic Projection and Media Techniques. (4) Lecture/laboratory, four hours. Designed for graduate students. Advanced study and practice in scenic projection and media techniques, with emphasis on analysis, 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/ studio, four hours. Advanced study and practice in costume design for theater. Imagination as impetus for design, text analysis, conceptual development with director, and visualization. Investigation of design research process, period style, and character analysis leading to visual presentation of design. Study of costume design for theatrical productions, ballet, opera, and musical theater. Each course may be repeated once for credit. Letter grading.

443A-443D. Advanced Scenic Design. (4 each) Studio, four hours. Advanced study and practice of scenic design for theater, with emphasis on cultivating imagination as impetus for design, text analysis, metaphor, 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 repeated twice for credit. S/U or letter grading.

C444A. Advanced Sound Design. (4) Lecture, four hours. Advanced study and practice in world of sound design, from concert music to film and stage. Letter grading. May be repeated once for credit. Concurrently scheduled with course C144A. Letter grading.

C444B. Advanced Sound Design. (4) Lecture, 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.
C445. Production Design for Film, Television, and Entertainment Media. (4–4) Lecture/studio, four hours. Study and practice in design of scenic environment for film, video, and entertainment media, including effects of differing media on design choices of production designers and art directors, and design for single- and multiple-camera production. Each course may be repeated once for credit. Letter grading.

C445A. Art and Process of Entertainment Design. (4–4) Lecture, three hours. Conceptualization, design, and prototyping of interactive theatrical events. Concurrently scheduled with courses C446A–C446B. Letter grading. C445A. Exploration of original forms of tape recording experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. C446B. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit.


C445D. Lighting Design for Special Events. (4) Lecture, four hours. Study of lighting design, including live performances for concerts, exhibitions, and live events. Concurrently scheduled with course C152D. Letter grading.

C445E. Lighting Design for Dance. (4) Lecture, four hours. Requisites: 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.

C446A. 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 completion of courses C446A and C446C). Letter grading.

C446B. 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 completion of course C446B). Letter grading.

C446D. Deconstructing Glamour. (4) Lecture, three hours; screenings, two hours. Exploration of integration of costume design into filmmaking process and illumination of work required to bring characters from written page to life. Letter grading.

C449A. Design Thesis Project. (4) Formerly numbered 449A. 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 completion of courses C449B and C449C). Letter grading.

C449B. Design Thesis Project. (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 completion of course C449B). Letter grading.

C449C. Design Thesis Project. (2) Formerly numbered 449C. 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. Courses C448A and C448B may be repeated once for credit; course C448C may be repeated twice for credit. Concurrently scheduled with course C153D. Letter grading.

C450A. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of costuming theatrical costumes, with emphasis on figure, costume design as tool for storytelling, exploring interaction to actor. May be repeated once for credit. Concurrently scheduled with course C152A. Letter grading.

C452B. Lighting Design for Theater. (4) Lecture/studio, four hours. Study of lighting design for proscenium, thrust, and arena configurations, music theater, and concert lighting. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


C452D. Lighting Design for Special Events. (4) Lecture, four hours. Requisites: courses C452A, C452B, C452C. Advanced topics in lighting design, including live performances for concerts, exhibitions, and live events. 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. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to conceptualization, and Entertainment Media. (4–4) 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. Courses C448A and C448B may be repeated once for credit; course C448C may be repeated twice for credit. Concurrently scheduled with course C152D. Letter grading.

C453B. Costume Design for Theater. (4) Lecture/studio, four hours. Study of costume design for proscenium, thrust, and arena configurations, multisets 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 designer, set costumer, and costume supervisor, especially management of production logistics, including but not limited to costume breakdowns, creating budgets, overseeing the costumers, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for set in the morning. May be repeated twice for credit. Concurrently scheduled with course C153D. Letter grading.

C453E. History of Costume Design in Movies. (4) Lecture, three hours; screenings, two to six hours. History of costume design within context of 20th-century fashion and film history, including evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C153E. Letter grading.

C453F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as 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 short narrative films, 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, music, and concert settings. Requisites: course C154A or C154B. Advanced topics in sound design, including live performances for concerts, exhibitions, and live events. Concurrently scheduled with course C154A. Letter grading.

C454B. Sound Design for Musicals. (4) Lecture/studio, four hours. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement with focus on musicals. Covers paperwork needed to complete show. Tuning space, equalization, and some advanced projects involving programming and mixing on various consoles. 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. Letter grading.

C454D. Script Analysis for Sound Design. (4) Formerly numbered C444C. Lecture/studio, four hours. Requisites: courses C454A, C454B. 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 C154D. Letter grading.

C455A. Graphic Representation of Design: Perspective Drawing. (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, C155C. Letter grading.

C455B. Graphic Representation of Design: Multi-media 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, C155C. 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 presentiations for theater, film, and television productions. May be repeated twice for credit. Concurrently scheduled with courses C155C, C155D. 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 from initial 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.
C45A. 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.


C45G. 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 to translate 3D models developed in Maya into Unreal virtual engine game environment, and utilize this platform as powerful tool for development, presentation, and staging of film and theater set design. Students primarily use Autodesk and Unreal gaming engines, but are also introduced to Zbrush, Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C156G. Letter grading.

C457A. Costume Construction Techniques. (2-2-2) Studio, four hours. Study of theory and application of drafting, pattern making, fitting, and construction techniques for period costumes and undergarments to achieve authentic-appearing costume using contemporary methods. Each course may be repeated once for credit. Concurrently scheduled with courses C517A-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 gaining familiarity with artist’s life and social milieu. Letter grading.


C458A-458B. Directing for Theater, Film, and Television. (4-4) Lecture, three hours. Limited to graduate students. Analysis and exploration of scenic design for the stage and design for television. 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.

C459A-459B-459C. Practicum and Practice in Teaching Theater. (2-2-2) Seminar, to be arranged; discussion, two hours. Study and practice of teaching theater at university level. Orientation and preparation of graduate (PhD) students who have responsibility to assist in teaching undergraduate courses in department. Discussion of problems common to teaching experience. S/U grading.

498. Professional Internship in Theater, Film, and Television. (4, 5, or 12) Tutorial, to be arranged. Full-time or part-time at studio or on professional project. Designed for advanced MFA students. Internship at various film, television, or theater facilities accentuating creative control, organization, and work of professionals in these 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 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. 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 Ph.D. Qualifying Examinations in Theater. (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 in a School of Theater, Film, and Television who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

Undergraduate Major

Individual Field BA in Theater, Film, and Television
Highly motivated students in a School of Theater, Film, and Television 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 product
- 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

10A. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for First-Year Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10C, 10D, 10E, 10F, or former course 10. Designed for first-year students. Imparts students with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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.

10F. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for Life Science Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10D, 10E, 10F, or former course 10. Imparts students interested in or pursuing majors in life sciences with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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.

10D. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for Incoming Transfer Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10C, 10E, 10F, or former course 10. Designed for transfer students. Imparts students with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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.

10E. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for Life Science Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10C, 10D, 10E, 10F, or former course 10. Imparts students interested in or pursuing majors in life sciences with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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 Life Science Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10D, 10E, 10F, or former course 10. Imparts students interested in or pursuing majors in life sciences with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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.

10B. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for Incoming Transfer Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10C, 10D, 10E, 10F, or former course 10. Designed for first-generation college students. Imparts students with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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.

10A. ACE UCLA|Critical Strategies to Achieve Undergraduate Excellence for First- and Second-Year Students. (2) Seminar, two hours. Not open for credit to students with credit for course 10A, 10B, 10C, 10D, 10E, 10F, or former course 10. Designed for first-generation college students. Imparts students with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigors, 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.
15A. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Designed for students in First Year Scholars Program (FYSP), Part I of three-part series of collaborative learning and community-building work sessions. Collaborative work spaces and participatory learning environments are integral component of student development. Creates specific and unique space for FYSP scholars to cultivate community and support, as well as develop critical strategies to achieve undergraduate excellence at top-tier institution. Engages students collaboratively with diverse community of scholars; supports their understanding and application of effective learning strategies; guides students in practice growth mindset, navigation of complex structure of UCLA, thinking critically about diversity and their identity, and being fully aware of their value to intellectual fabric of institution as contributors to innovative research scholarship. P/NP grading.

15B. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Requisite: course 15A. Designed for students in First Year Scholars Program. Workshops are integral component of student learning and development. Continues to cultivate learning communities. Workshops prepare students for second year, as they become more intentionally engaged in academic community, at UCLA and beyond. Workshops foster academic, professional, and personal development of students majoring in humanities and social sciences. Instructors, peer mentors, and campus partners facilitate interactive workshops that help students transition to, engage with, and navigate UCLA as they culminate their first year at university. P/NP grading.

15C. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Requisite: course 15B. Designed for students in First Year Scholars Program (FYSP), Part III of three-part series of collaborative learning and community-building work sessions. Students work together on ongoing research proposal and project presented at culmination of program. Collaborative work spaces and participatory learning environments are integral component of student development. Creates specific and unique space for FYSP scholars to cultivate community and support, as well as develop critical strategies to achieve undergraduate excellence at top-tier institution. Engages students collaboratively with diverse community of scholars; supports their understanding and application of effective learning strategies; guides students in practice growth mindset, navigation of complex structure of UCLA, thinking critically about diversity and their identity, and being fully aware of their value to intellectual fabric of institution as contributors to innovative research scholarship. P/NP grading.

30. How to Succeed at UCLA: Retention. (2) Seminar, two hours. Limited to students in Bruin Readmission Program. Designed to provide students who are working toward readmission critical understanding of how they and others arrive at their dismissal status and steps they can take to lead to academic success in future. Examination of research on retention and departure in high education and both individual and collective strategies for academic success. P/NP grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

Urban Planning

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Urban Planning

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Vinit Mukhiya, PhD

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José Loya, PhD

Marques A. Vestal, PhD

Lecturers

Ted M. Bardacke, MS

Carol E. Goldstein, BA

Joan C. Ling, MA

Walker R. Wells, MCRP

Adjunct Associate 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 non-profit 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, public affairs, 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) five elective courses selected from Public Affairs 110, 120, 121, 140, 142, 148, 149, 153, 154, 155, 157, 159,
M160, M161, Urban Planning M120 (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) capstone course selected from Public Affairs 195, 195CE, 199, Urban Planning 185XP, 195, or 199, or an additional upper-division elective course (minimum 4 units) selected from the list above.

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
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/Juris Doctor
• Master of Urban and Regional Planning/Latin American Studies MA
• Master of Urban and Regional Planning/Master of Architecture
• Master of Urban and Regional Planning/Master of Business Administration

Master of Urban and Regional Planning—Institut d’Études 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.

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
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 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
M110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) (Same as Social Welfare M110.) Lecture, three hours; discussion, one hour. Analysis and praxis of public problems. Taking up case of persistent inequality in liberal democracies, coverage of key frameworks and methodologies for understanding and analyzing poverty and inequality and examination of forms of action, 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, while avoiding analytical divide between global north and global south. Letter grading.
M120. Introduction to Cities and Planning. (Formerly numbered 120.) (Same as Public Affairs M109.) Lecture, three hours; discussion, one hour. Survey of urban history and evolution in U.S., urban social theory, current growth trends, 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.
121. Urban Policy and Planning. (4) Lecture, three hours. Examination of current urban planning and policy issues and debates, such as normative theories of good urban form, metropolitan organization and governance, economic development and growth management, edge cities, spatial mismatch hypothesis, urban poverty, racial/ethnic inequality, gender and urban structure, sustainability, and future of cities. P/NP or letter grading.
M122. Policy, Planning, and Community. (4) (Same as Asian American Studies M108) Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographic information systems to be used to define problems and needs. Letter grading.
129. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of particular planning/policy subfield (e.g., economic development, environmental planning, housing and community development, international planning and development, land use, or urban design) in some depth. Specific topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or letter grading.
130. Fundamentals of Urban and Regional Economics. (4) Lecture, three hours. Preparation: one introduction to microeconomics course. Most U.S. population lives and works in urbanized areas, and world’s population is becoming more urbanized with each passing decade. National, state, and local governments are engaged in managing, planning, policy-making, and governance in urban context. Ultimate efficacy of those public activities can be enhanced by understanding of economic forces acting on urban areas. Basic concepts related to location choice, agglomeration effects, economies of scale, and specialization by cities and transportation. P/NP or letter grading.
CM137. Southern California Regional Economy. (4) (Same as Labor Studies M180.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market 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 C237C. Letter grading.
M140. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Same as Chicana/o and Central American Studies M121 and Labor Studies M121.) Lecture, four hours. Examination of key issues (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 in Los Angeles. Critical analysis 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 contemporary issues that affect low-income communities and underserved neighborhoods, particularly in Los Angeles area. Field of planning offers distinct perspectives and opportunities for improving vulnerable communities. 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.
Change: Mobility in Los Angeles. (5) Focus on those challenges. Examination of theory and practice virtually no part of globe remains untouched by majority of Earth’s population now lives in urban areas. Lecture, three hours. In 21st century, major seems to assume that someone else is doing hard thinking. Mistakes in planning for parking to explain why planning for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Concurrently scheduled with CM25, Letter grading.

M157. Built Environment and Health. (4) (Same as Public Affairs M156.) Lecture, three hours. Environmental planning is more than simply finding solutions and fixing them. Each policy must be negotiated and planned, with 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.

M160. Environmental Politics and Governance. (4) (Same as Environment M164.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and planned, with 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.

M164A. Documentary Production for Social Change (Politics of Disease. (6) (Same as Ability Studies M164A.) Seminar, three hours; fieldwork, two hours. Exploration of documentary filmmaking as catalyst for social change, using daily commutes in Los Angeles as case study. Introduction to issues of race, ethnicity, gender, disability, and class on experiences of commuting, access to public transportation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to observational, interview-based, and participatory documentary shooting and editing techniques, as well as social marketing strategies that are vital to documentary production and distribution. Letter grading.

M165. Environmentalism: Past, Present, and Future. (4) (Same as Environment M125 and Geography M125.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements, and its current concerns, and new and changing nature of modern environmentalism. Introduction to early ideas of environment, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of politics of American environmental thought and contemporary environmentalism. Offered to introduce students 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.


M167. Environmental Justice through Multiple Lenses. (Same as Environment M167 and Public Affairs M161.) Lecture, three hours. Examination of intersection between race, economic class, and environment in U.S., with focus on issues related to social justice. Because environmental inequality is highly complex phenomenon, multidisciplinary and multipopulation approach taken, using alternative ways of understanding, interpreting, and taking action. Letter grading.

M168. Politics of Water. (4) (Same as Public Affairs M159.) Lecture, three hours; discussion, one hour. Access to safe and sustainable water provision is major challenge for governments. Examination of political, economic, social, and spatial aspects of water provision in Asia, Africa, Latin America, and U.S. Key issues include water and state building, market reforms and globalized water supplies, and social mobilization and citizen demand making strategies for crisis in citizen claims making. Letter grading.

M171. Planning Issues in Latin America/Latino Communities: Preserving and Strengthening Community Assets in Mexico and Salvadoran Los Angeles. (4) (Same as Chicana/o/Latina 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 of community assets that form the basis of community development and from their development to their potential. How to strengthen and how to preserve community resources in Foco. 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.

M172. Local and Economic Development. (Same as Labor Studies M171.) Lecture, three hours. Exploration of economic development and identification of ways that labor and labor unions directly and indirectly influence patterns of economic development. Wide range of roles that labor plays, and could play, in promoting and supporting economic development for all. Concurrently scheduled with C271B. Letter grading.

M175. Women and Cities. (4) (Same as Gender Studies M175.) Lecture, three hours. Limited to juniors/seniors. Examination 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. Letter grading.

C164. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C284. Letter grading.

185XP. Community-Based Research in Planning. (Formerly numbered 185SL.) Seminar, one hour; fieldwork, three hours. Required for 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 only. Service learning experience in community setting 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 and sponsoring organizations. Readings to be determined in consultation with instructor. P/NP grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor 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 finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. 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 contract 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 letter grade instruction and credit. 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 contract 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 in community agency or urban planning setting. Students meet regularly with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Urban Planning. (2 to 8) Tutorial, three hours. Limited to juniors/senior. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated as needed. 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. Focus on postmodernism and primary texts as a basis 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. Limited to juniors/senior as counted toward requirement 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 manage-
203. Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 8 each) (Same as Law 206B.) Lecture, 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 on African American and Latino families, native Americans, the disabled, and senior citizens; and legal role of economic and community development in expansion of housing supply also considered. Letter grading.

203A-203B. Seminar: Housing Segregation, Housing Discrimination, and Evolution of Public Policy, (1 to 8 each) (Same as Law M206B.) Seminar, three hours; two field trips. Course M203A is enforced requisite to 203B. Consideration of selected aspects of housing law and policy, including current federal and state housing subsidies; remedies of housing consumers; impacts of market discrimination on African American and Latino families, native Americans, the disabled, and senior citizens; and legal role of economic and community development in expansion of housing supply also considered. In Progress (M203A) and letter (203B) grading.

204. Research Design and Methods for Social Policy Analysis. (Formerly numbered 218.) Lecture, three hours; outside study, nine hours. Limited to graduate students. How to become more sophisticated consumers and producers of quantitative and qualitative research; how to read, critique, and review primary literature; impacts of market discrimination against children, racial minorities, and women; and local governmental laws influencing cost and supply, such as antigrowth and rent control ordinances. Letter grading.


206A. Introduction to Geographic Information Systems and Spatial Data Analysis. (4) (Formerly numbered M206A) Laboratory, three hours. Designed to familiarize students with use of geographic data in 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 in planning, design, and development practice, advocacy, and policy work. Letter grading.

206B. Advanced Geographic 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 on data analysis, management, and visualization. Students are guided through series of exercises and assignments to build higher levels of 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.

207. Applied Microeconomics for Urban Planning. (4) Lecture, three hours. Preparation: passing score on microeconomics test given first day of class. Practical use of economics in analyzing public resource allocation problems. Topics include review of marginal analysis, difference between equity and efficiency, public goods and free rider problem, environment pricing, public service pricing, and conflicts between individual and collective rationality. Letter grading.

208A. Introduction to Luskin PhD Research. (4) (Formerly numbered 208A.) (Same as Social Welfare M249A.) Lecture, two hours; discussion, two hours. Requisite of first-year PhD students. Introduction to design and execution of public affairs research; exploration of subfields of public affairs scholarship and approach to research on contemporary, first-hand topics in social welfare and urban planning. Preparation and filing of PhD program of study. Letter grading.

208B. Logic of Inference and Causation. (4) (Formerly numbered 208B.) Seminar, three hours. Requisites: courses M208A, M208D. Required in first or second year of PhD program. Development of researchable hypotheses and accompanying research design strategies, understanding of threats to validity, review of critiques of traditional methods and of alternative approaches to scholarship. Letter grading.

209. Special Topics in Planning Theory. (4) (Same as Social Welfare M249C.) Seminar, three hours. Requisite for all PhD students who have passed their field examinations but have not yet advanced to candidacy and all MURP students completing their thesis capstone option. Advanced research design course that guides students in selecting problem/question to study, reviewing previous research on problem/question, framing specific research questions/hypotheses, and selecting methodology and plan for testing hypotheses. May be repeated for credit. S/U or letter grading.

210. Introduction to Qualitative Research. (4) (Same as Social Welfare M249B.) Lecture, three hours; outside study, nine hours. Requisite: course M208A. Required in first or second year of PhD program. Introduction to philosophy, theories, logic, design, and practice of qualitative research by studying its varied methodologies. Letter grading.

210B. Comparative Perspectives on States, Markets, and Civil Society. (4) (Same as Public Policy M291C and Social Welfare M203X) Seminar, three hours; outside study, nine hours. Advanced seminar explores across a public policy, social welfare, and urban planning. May be repeated for credit. S/U or letter grading.

211. Law and Quality of Urban Life. (4) Lecture, three hours. Introduction to law as urban system, directed primarily toward those interested in intersection of law and policy; broad array of urban issues examined, as is law’s role as partial cause and cure of urban problems. Examination of law as changing process rather than collection of principles, so that students develop facility to interact with law and lawyers in positive and forceful manner. S/U or letter grading.

212. Internships/Comparative Planning Workshops. (2 or 4 Seminar, three hours; field trips, five to 10 days. Topics of planning and policy in various international or domestic sites. Topics may include urban design, urban development, urban governance, land use, environmental issues, infrastructure planning, housing development, community development, and/or physical planning. May be repeated for credit. S/U or letter grading.

214. Neighborhood Analysis. (4) Lecture, two hours; laboratory, two hours. Examination with GIS and statistical software useful but not necessary. Methods-oriented studio course, with focus on developing data and analytical skills required to profile and analyze neighborhoods. Students will develop quantitative neighborhood profiles that can be used in community planning and at other geographical levels (e.g., cities, counties, and regions). Students gain proficiency, experience and produce product that benefits larger community. Data management and analysis, including accessing, cleaning, and presenting data. Letter grading.

215. Spatial Statistics. (Same as Geography M205 and Statistics M222.) Lecture, three hours. Designed for graduate students. Survey of modern methods used in analysis of spatial data. Implementation of various techniques using real data sets from diverse fields, including neuroimaging, geography, seismology, demography, and environmental sciences. S/U or letter grading.

216. Current Issues in Food Studies. (4) (Formerly numbered 216.) Seminar, three hours. Limited to Food Studies Graduate Certificate Program students. Food is complex subject given that production, processing, distribution, preparation, consumption, and disposal of edible matter is biologically vital to human growth, development, and function and critical to many aspects of society and culture. Food studies is growing cross-disciplinary field of research, teaching, and advocacy that encompasses and draws from cultural anthropology and geography, food and law and policy, urban planning, sociology, literature, history, public health, nutrition, environmental science, and cell biology, science and technology studies (STS), agronomy, and other disciplines. Survey of some of these wide-ranging topics and disciplines that define food studies. Letter grading.

217A-217B. Comprehensive Planning Project. (4-6) Seminar, three hours. Designed for second-year students. Comprehensive project brings together students of varying backgrounds to work as teams in joint solution of urban planning problem. Each project spans two terms. Successful completion of project meets requirements of Comprehensive Examination Plan A of MA program. S/U or letter grading.

218A. Graphics and Urban Information. (4) (Formerly numbered 218.) Lecture, two hours; studio, one hour. Presentation of basic graphic methods and tools for conceptualization, analysis, and documentation of built environment. Development of fundamental skills of graphic identification and communication. Letter grading.

218B. Advanced Visual Communication. (4) Lecture, 90 minutes; computer laboratory. Development of advanced graphic design and presentation skills, and strengthening of written 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 communication and 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 curves and mathematics of finance; data measurement 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 as tool 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, typically in Fall Quarter; required of first-year PhD students who have not completed comparable graduate course in planning history and theory. Exploration of planning thought and practice over time, leading authors and key issues in field of planning, traditional and insurgent histories of planning, and alternative approaches to planning for multiple and pluralistic publics. Letter grading.

222B. Advanced Planning Theory: Production of Space. (4) Lecture, three hours, Required of first-year PhD students 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.

233. Critical Race Studies. (4) Lecture, two hours; laboratory, one hour. Greater emphasis on graphic presentation and visual communication with cultural stakeholders, and locational and historical survey of evolution of regional planning. 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 structure and impacts. Gives students important background for courses M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

234A. Introduction to Planning History and Theory. (4) (Same as Geography M229B.) Lecture, three hours. Recommended preparation: course M265. Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how environments are formed, what they mean, and where and how they are changing. Case studies for and against the theories of planning and the ways in which planning has impacted the world. Letter grading.

234B. Ecological Issues in Planning. (4) (Same as Geography M229B.) Lecture, three hours. Recommended preparation: course M265. Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how environments are formed, what they mean, and where and how they are changing. Case studies for and against the theories of planning and the ways in which planning has impacted the world. Letter grading.

234C. Resource-Based Development. (4) (Same as Geography M229C.) Lecture, three hours. Recommended preparation: course M234A. Several major issues associated with development of specific natural resources. Topics include nature of particular resource (or region associated with it), its previous management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.


235B. Civil Society, Nongovernmental Organizations (NGOs), 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.

236A. Theories of Regional Economic Development I. (4) (Same as Geography M230A and Public Policy M240.) Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between regions across space and time; reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

236B. Globalization and Regional Development. (Same as Geography M230B.) Lecture, three hours. Requires: course 236A. Application of theories of regional economic development, location, and trade learned in course M236A to contemporary processes of globalization; nature and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.

236C. Advanced Workshop on Regions in World Economy. (4) Lecture, three hours. Requires: course M236B. Advanced workshop on regional development examining changes in organization of production systems, their geographies, and processes that affect regional performance in globalized environment. Letter grading.

237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Introduction to methods and processes for analysis of industrial regions, industries, companies, and their labor forces. Current theories and conceptions of industrial structure and industrial change. Investigation of characteristics and transformation of industrial regions, and how these may be analyzed to aid in location 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. and international contexts. Because economic development strategies seek to modify or shape existing conditions, focus on how policies are designed to harness dynamics associated with types of inter-industry and intra-industry competition, and interrelationships among capital, labor, and state. Letter grading.

237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economic development, with emphasis on Los Angeles. Key economic sectors, labor market composition, and review of conflicting portrayals depicting dynamics of region. Three day bus tours of key economic regions and guest lectures by regional experts included. Concurrently scheduled with course CM137. Letter grading.

238. Global Labor Markets. (4) Lecture, three hours. Consideration of labor-related programs, policy, and strategy for international and national level. Review of major approaches to improving quality, quantity, and access to jobs, including training, regulation, migration policy, organizing strategies, and social safety net. Global in scope, with particular reference to countries of global south. 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.

239B. Local Government. (2 to 6) (Same as Law M285.) Lecture, three hours. Analysis of structure and function of local, regional, and state government in historical and institutional context: organization, finance, intergovernmental relations, role of judiciary, public services, lawmaking, citizen participation through initiatives, 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. We will consider how and why bureaucrats structure and regulate many aspects of our lives, including education, housing, social benefits, and mobility. Examination of role of bureaucracies in emergence of, perpetuation of, and resistance to new forms of inequality. 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 how peoples’ experiences of bureauc-
424. Poverty and Inequality. (4) Lecture, three hours. Examination of relationship between urbanization and spatial inequality in U.S. Geographic and social 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, and public housing, spatial disparities in access to opportunities, housing mobility, neighborhood health and safety, urban infrastructure, and public policy. May be repeated for credit. Letter grading.

245. Urban Public Finance. (4) Lecture, three hours. Examination of determinants of urban poverty, with emphasis on poverty in U.S. and on geographic dimensions of poverty. Description of alleviation and mitigation of poverty, an analysis of intergovernmental contracting as method of supplying urban public services, tax incentive for urban redevelopment, and municipal bond market. S/U or letter grading.

M246. Poverty, Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Social Welfare M290L) 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.

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. Generally taken in first year. S/U or letter grading.

249. 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.

M250. Transportation, Land Use, and Urban Form. (4) (Same as Public Policy M230) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan location theory, recent trends in urban form, spatial mismatch hypothesis, jobs/housing balance, transportation in strong central city and polycentric city, nondedicated urban transportation debate, rail transit and urban form. Letter grading.

C251. Parking and City. (4) (Formerly numbered 251.) Lecture, three hours. Requisite: course 207. Parking is misunderstood link between transportation and land use. Theory and practice of parking. Topics without assumed free parking is 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 planning for parking help to explain why planning for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Concurrently scheduled with course 252. Letter grading.

252. Transportation and Land Use: Transportation and Urban Design Studio. (4) Studio, three hours. Students of different backgrounds and interests collaborate and individually analyze and propose solutions for various urban design project. Course simulates real-world professional urban design planning of type that students might be assigned if working for consulting firms or public policy. Students develop a critique of urban design course. Course is offered in spring semester. 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 engineering and transportation planning efforts to improve pedestrian and bicycle transportation. Exploration of field’s role in land use and transportation planning, public health, and environment. Detailed knowledge provides understanding of various bicycle and pedestrian facilities and their appropriate contexts. Examination of bicycle and pedestrian planning in context of overall street design. Essential components of bicycle and pedestrian transportation planning, including policy programs, 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 M222) 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 centered on transportation planning and project evaluation processes; high-speed rail and airports and aviation; public transit policy and planning, including performance evaluation and route planning; taxis and ADA paratransit, ride-hailing, car-, bike-, and scooter-share; implications of vehicle auto- mation for shared mobility in the years ahead. Letter grading.

M256. Transportation Economics, Finance, and Policy. (4) (Same as Public Policy M222.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transport- nation finance; historical evolution of highway and transit finance; public and private provision of highways; pri- vate participation in road finance, toll roads, road cost and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policy; operating and privatization of 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 structure, transportation (travel patterns and transportation investments), and economic outcomes. Role of transportation in improving economic outcomes for low-income and mi- nority households and communities. Letter grading.

M258. Transportation and Climate Change. (4) (Same as Public Policy M223) Lecture, three hours. How to reduce greenhouse gas emissions from trans- portation. Critical analysis of policies to improve fuel economy, promote electric vehicles, and reduce ve- hicle fleet. Examination of climate change and environ- mental regulation. Analytical methods to quantify carbon emissions and estimate emission reductions. Focus on climate change, but consideration of other environmental consequences of transportation, from air pollution to stormwater runoff. Letter grading.

260. Environmental Politics and Governance. (4) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy problem must be negotiated and implemented within the nested multiple, complex systems of governance. Institutions and politics matter deeply. Overview of how environ- mental governance works in practice and how it might be improved. Letter grading.


260B. Green Urban Studio: Designing Living Neighbor- hoods. (4) Studio, three hours. Students gain de- tails about living and building in urban environments, emerging performance-based methods for assessing issues of energy, water, waste, food, transportation, habitat, biodiversity, and local economies at district or neighbor- hood scale. 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 demonstrations of shortcomings, land-use planning remains integral part of planning practice. How does land-use control work? Has it been adequate? What are the problems with traditional land-use control mechanisms? How can land-use regulations in future planning address criti- cisms? How is role of land-use planning in good so- ciety? S/U or letter grading.

262. Urban Environmental Problems: Water Re- sources. (4) Lecture, three hours. Water access affects quality of life and livelihoods both in California and across low and middle income countries. Examin- ing of similarities and distinctions between relevant water issues in both contexts. To date, water resources planning has been devoted almost exclusively to engineering and technical capacity of service delivery systems. Focus here on social, political, and environmental determinants of access and related conflicts. Water resource governance issues primarily considered at subnational, city, and house- hold scales. S/U or letter grading.

264. Environmental Law. (4 or 6) Lecture, three hours. Overview 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 pollu- tion and Clean Air Act as means of illustrating policy issues underlying field. Concurrently scheduled with Law 290, S/U or letter grading.

M264B. Environmental Law. (264A: 3 or 4/264B: 1 or 2) Lecture, three hours. Course 264A is enforced requisite to 264B. Examination of field of environ- mental 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 290 in Progress (264A) and S/U or letter grading (264B) grading.

M265. Environmentalisms: Climate Dimensions and Politics, Past, Present, Future. (4) (Same as Ge- ography M265) Lecture, three hours. Historical, one hour. Review of environmental theories and their prac- tices in dynamic U.S. and international contexts. Is- sues of climate change, scenario planning, and matrix ecology and its implications in both urban and rural settings. Exploration of problematics of increasing in-
tensationalization (or international implications) of environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grading.


265C. Food Systems. (4) Lecture, three hours. Review of analysis and design techniques of distribution, and systems of consumption to address most widespread human impacts on planetary biodiversity, landscapes, climates, and social systems. Letter grading.


M267. Environmental and Resource Economics and Policy. (4) (Same as Public Policy CM260.) Lecture, three hours. Requisites: courses 207 and/or 220B, or Public Policy 204 and 206. Survey of ways ecologies 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.

M268. Policy Analysis of Emerging Environmental Technologies. (4) (Same as Public Policy M286.) Lecture, three hours. Acquisition and utilization of economic, finance, planning, and policy analytic tools needed to analyze emerging technologies from early to middle market phases. Rooftop solar, electric vehicle, and energy efficiency as focal examples, with emphasis on role of policy and planning incentives intended to spur adoption. Letter grading.

269. Special Topics in Environmental Analysis and Policy. (4) Lecture, three hours. Topics in environmental analysis and policy selected by faculty members. May be repeated for credit. S/U or letter grading.

M270. Homelessness: Housing and Social Service Issues. (4) (Same as Public Policy M263A.) Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness: who homeless are, what social services and housing are available, existing and new programs—corporate 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. Overview of basic approaches, important concepts, resources and language of field, and major strategies for revitalization of low-income neighborhoods. Letter grading.

C271B. Labor and Economic Development. (4) Lecture, three hours. Exploration of economic development and identification of factors that labor and labor unions 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. Concurrently scheduled with course CM172. Letter grading.

M272. Real Estate Development and Finance. (4) (Same as Architecture and Urban Design M272.) 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, financially geared toward students in architecture, and urban design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. S/U or letter grading.

272B. Advanced Real Estate Studio. (4) Studio, three hours. Requisites: course M272. Studio combines disciplines of planning, urban design, construction, real estate development, and investment, and property operations and management. Students learn about behind-the-scene negotiations and decisions, and gain better ability to determine real estate project feasibility, desirable sites, and appropriate financing methods and alternatives, and knowledge about how to frame development programs for success. Letter grading.

273. Site Planning. (4) Lecture, 90 minutes; laboratory, 90 minutes. Study of principles of site planning for urban areas. S/U 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, design and development, and transportation policy and planning concentrations. Provides an overview of physical planning, land use, site analysis, and surveys; regulatory structures and social/community impacts. Letter grading.

M275. Community Development and Housing Policies: Roles of State, Civil Society, and nonprofits. (4) (Same as Public Policy M243 and Social Welfare M290U.) Lecture, three hours; outside study, nine hours. Designed for graduate students interested in 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.

M276A-276B. Urban Housing. (1 to 8 each) (Same as Public Policy M276A and Social Welfare M290S.) Lecture, three hours. Topics in housing and low-income housing development programs for success. Letter grading.


278. More Jobs, Better Jobs: Work and Policy. (4) Lecture, three hours. Central issues in urban economic development is jobs—how to create them, how to help disadvantaged populations get access to them, and how to ensure that they are of adequate quality in terms of wages, advancement, and skill development. Examination of how urban labor markets work and what can be done to help them work better, with focus on U.S. Particularly emphasis on low-wage, low-skill workers and marginalized groups, such as inner-city people and inner city neighborhoods. Analysis of how urban labor markets work with discussions of policy options for making them work better and range of solutions, investments, and strategies to improve them. This includes job ladder creation, union and community organizing, and immigration reform. Examination of power and economic inequality and how to make changes. Letter grading.

279. Seminar: Public Space. (4) Seminar, three hours. Investigation of changes in production, consumption, design, and meaning of public space and analysis of socioeconomic, political, and cultural factors that lie behind them. Letter grading.

280. Affordable Housing Development. (4) Lecture, three hours. Requisites: courses 220A, 220B. Overview of basic concepts and skills utilized in nonprofit development initiatives, especially by community-based organizations. Focus on nonprofit provision of subsidized housing, emphasizing ways professional broker debt and equity funding from private, governmental, and philanthropic sources. Use of client projects and negotiation exercises. S/U or letter grading.

281. Introduction to History of Built Environment in U.S. (4) Lecture, two hours; discussion, one hour. Survey of development and evolution of built environment with focus of instructor. Introduction to history of physical forms of urbanization in America; survey of economic, political, social, and aesthetic forces behind creation of built environments, processes, and movements. Letter grading.

282. Urban Design: Theories, Paradigms, Applications. (4) Lecture, three hours. Discussion and evaluation of philosophical bases, ideologies, and paradigms of urban design in last century; examination of how these are reflected on built environment of cities. Letter grading.

283. Community Development, Organizing, and Engagement. (4) Lecture, three hours. Examination of theory and practice of community development, organizing, and engagement. Understanding of multiple dimensions of community development (physical, economic, political, social) and how they interact, as well as the nature of key strategies and issues in community development. Analysis of role of community organizing as empowerment strategy in disadvantaged and marginalized communities, and relationship of community organizing to social movements for social change. Consideration of various approaches to community participation and engagement, and struggles over power and inclusion within these processes. Examination of relations between development, organizing, and engagement. Particular attention to race, gender, and class dimensions of these processes, issues of power, and how planner’s role and processes are affected by them. Letter grading.

C284. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course CM154. Letter grading.

C285. Built Environment and Health. (4) (Formerly numbered 285.) Lecture, three hours. Exploration of important linkages between urban built environment and public-health outcomes using ecological, urban planning, and community-based lenses through theory and series of case studies. Knowledge of these linkages is used to propose ecological solutions to issues at nexus of built environment and public health. May be concurrently scheduled with course CM157. Letter grading.

M287. Politics, Power, and Planning. (4) (Same as Public Policy M277 and Social Welfare M290.) 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 political 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 mechanism of governance. Examination of 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 processes. Lectures, seminar-type discussion, in-class presentations, and guest presentations. Letter grading.

289. Sprawl and Smart Growth. (4) Lecture, three hours. Suburbs are not new, but 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. Letter grading.
M291. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Design CM247A.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainability 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. Multidisciplinary approach leading to understanding of political, social, economic, and technological frameworks of urban systems and its dynamic interrelations. S/U or letter grading.

M293. Politics, Ideology, and Design. (4) (Same as Architecture and Urban Design M293.) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294. Housing in Developing Countries: Policy Objectives and Options. (4) Lecture, three hours. Examination of relevance of public policies and their intended and unintended effects on housing demand and supply in developing countries. How definition of housing problems, and scope of solutions, has changed over time. Critical assessment of some key solutions that have been tried in past, their advantages, shortcomings, and resultant trade-offs, and likely directions for future housing policy. Letter grading.

M295. Introduction to Urban Humanities. (4) (Same as Architecture and Urban Design M295.) Seminar, six hours; studio, six hours. Core introduction to urban humanities. Analytical and descriptive methods of humanities combined with speculative and projective methods of architectural and urban design to better understand contemporary state of human environment. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

M296. Housing Policy and Planning. (4) (Same as Public Policy M243B.) Lecture, three hours. Study of housing policy and planning focused partly on California given rapid changes occurring in state, with consideration of experiences from other states and countries and to what extent they are relevant here. Specific topics likely include policies such as social housing, rent control, and housing finance, issues of household formation, housing supply, housing submarkets, and gentrification, as well as planning processes related to housing production and Affirmatively Furthering Fair Housing. Letter grading.

297. Current Issues in Urban Planning. (1 to 4) Seminar, three hours. Current issues in urban planning selected by students in conjunction with faculty members. May be repeated for credit. S/U grading.

M297B. Current Issues in Public Affairs. (2) (Same as Public Policy M297C and Social Welfare M297B.) Lecture, one to two hours. Introduction to wide range of current 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 Social Welfare 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 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.

298. Special Topics in Emerging Planning Issues. (2 or 4) Seminar, three hours. Topics in newly emerging planning issues such as role of cutting-edge technology, innovative policies, and experimental programs. May be repeated for credit. Letter grading.

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.

M404. Joint Planning/Architecture Studio. (4) (Same as Architecture and Urban Design M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers; field trips. Examples of past projects include 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.

M470. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM470 and Environmental Health Sciences M471.) 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. S/U or letter grading.

496. Field Projects. (4) Tutorial, four hours. May not be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor. Department chair and graduate dean. Use of credit enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. MA Research in Planning. (2 to 4) Tutorial, one and one-half to three hours. May be repeated once for credit for maximum of 8 units. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 12) Tutorial, four hours. May be repeated for credit by PhD students. S/U grading.

598. Preparation for MA Thesis in Urban Planning. (4) Tutorial, four hours. May be repeated but may be applied toward degree only once. S/U grading.

599. PhD Dissertation Research in Planning. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

UROLOGY

David Geffen School of Medicine
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Urology
310-794-8492

Mark S. Litwin, MD, MPH, FACSM, 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 classes that cover general urology, urological subspecialties, endoscopy, and uro oncology. 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 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Urology. (2 to 8) Tutorial, 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. Roussève, BA, Chair
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Chandler McWilliams, MFA, MA
David H. Gere, PhD
Perry M. Daniel, MFA
Kevin M. Kane, PhD (Arts and Architecture)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Lauren V. McCarthy, MFA (Design/Media Arts)
Chandler McWilliams, MFA, MA (Design/Media Arts)
Hirsch Perlman, BA (Art)
Karen Hunter Quartz, PhD (Education)
David J. Roussevé, BA (World Arts and Cultures/Dance)
Anna M. Sew Hoy, MFA (Art)

Overview
The Visual and Performing Arts Education minor is an interdisciplinary and interdepartmental series of courses designed to introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system; introduce students to the profession of the teaching artist and to a broad range of careers in the arts, including K-12 teaching, community arts education, museum education, creative arts therapies, and arts advocacy and to a variety of arts-related programs and cultural agencies, including community arts centers, museums, after-school programs, and nonprofit arts institutions; expand the ongoing dialogue and interaction between UCLA, extended Los Angeles community, K-12 public school system, and students in the arts; extend the School of the Arts and Architecture commitment to UCLA and community partnerships by linking teaching and research with undergraduate education, civic engagement, and support experiential learning opportunities that address issues of educational equity and social justice; and conduct research on the transformative potential for the arts to positively impact society and evaluate best practices in arts education.

Undergraduate Minor
Visual and Performing Arts Education Minor
The Visual and Performing Arts Education minor is intended to supplement the education of undergraduate students enrolled in the Architectural Studies, Art, Art History, Dance, Design/Media Arts, Ethnomusicology, Music, Theater, and World Arts and Cultures majors.

Admission
To apply to the minor, students must have completed at least 50 percent of the lower-division requirements of their specific majors and Arts Education M102 with a grade of B or better, be in good academic standing with an overall grade-point average of at least 2.7, and submit a minor application, which includes a concentration proposal to be developed in consulta-

Upper-Division Courses
101. Selected Topics in Arts Education. (4) Lecture, three hours; outside study, nine hours. Selected topics in arts education explored through variety of approaches that may include community projects, guided teaching experiences, studio and fieldwork, oral presentations, and research projects. Topics announced in advance. May be repeated for a maximum of 8 units. P/NP or letter grading.

M102. Introduction to Arts Education for Multiple Publics. (4) Lecture (3), Laboratory (1). Minor in Arts Education (M142). Seminar, three hours; outside study, nine hours. Introductory course with focus on arts education for multiple publics in inner-city settings. Study of core issues in arts education as a social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city schools and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.

103. Socially Engaged Pedagogy in Arts. (4) Lecture, three hours; outside study, nine hours. Students are in contact and conversation with active community-based artists and youth workers regularly utilizing socially engaged goals, principles, and practices. Based on readings and 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 and audio documentation, discussion, research papers, oral presentations, and relevant guest speakers. P/NP or letter grading.

107. Visual Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching visual arts specifically in K-12 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, visual artwork, guided teaching experiences, studio and/or fieldwork, readings, discussion, and oral presentations. P/NP or letter grading.

108. Performing Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching 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, discussion, and oral presentations. P/NP or letter grading.

109. Design/Media Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching design media arts specifically in K-12 setting. Emphasis on strategies for teaching in hybrid settings, inclusive of management
strategies, evaluation, and 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.

M102. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) (Same as Education M129.) 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 members in small course settings. P/NP or letter grading.

M102X. Arts Education Undergraduate Practicum and Capstone Project. (4) (Formerly numbered M102XL.) (Same as Education M129X.) 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
Janet M. O’Shea, PhD, Chair
Anurima Banerji, PhD, Graduate Vice Chair
Victoria E. Marks, BA, Undergraduate Vice Chair

Overview
Defined by a dynamic blend of theory and practice, the Department of World Arts and Cultures/Dance (WAC/D) is led by a renowned faculty of scholars, activists, curators, filmmakers, and choreographers dedicated to critical cross-cultural analysis and art-making. The department is the place to make dances, explore digital media, curate exhibitions, become an arts activist, and develop scholarly expertise in culture and the arts. Multiple disciplines and artistic approaches are used to encourage students to position their work within broad social contexts.

In the World Arts and Cultures BA arts activism, visual cultures, and critical ethnographies are emphasized. The Dance BA integrates composition, training, and improvisation, while challenging students to locate dance politically, culturally, and historically. The MFA in Choreographic Inquiry promotes adventurous choreographic inquiry and engages with global discourses around the body and performance. The MA/PhD programs in culture and performance address theories of corporeality, performance, visuality, and culture, and offer interdisciplinary training that fosters independent research. The Art and Global Health Center enables undergraduate and graduate students to explore art as a life-saving activity.

The path-breaking programs of the department are committed to academic excellence, diversity, freedom of expression, activism, and social transformation through the arts.

Undergraduate Study
The undergraduate program offers majors in Dance and in World Arts and Cultures.

The BA in Dance thoroughly integrates learning to dance, learning to make dances, and critical interrogation of dance as a cultural practice. Students study a variety of dance throughout their studies. They enroll in a four-term sequence in dance composition, with additional opportunities to participate in the creation of their own dances, as well as working as dancers in the creation of new works by faculty members and visiting artists. Further, they engage in a core of four courses in the study of scholarly discourse around the body and dance, launching a critical inquiry into their own study of bodily practices, internalization of the embodied experience, and how bodily ideas and embodied experiences are interpreted and communicated outwardly and interpersonally, both locally and globally.

The BA in World Arts and Cultures highlights culture and representation as key perspectives for understanding creativity in local and global arenas. Three streams of cross-cultural and interdisciplinary study are available: arts activism, critical ethnographies, and visual cultures. These streams define the department commitment to a range of practices, including ethnography, activism, visual and related expressive arts, documentary and short films, museum and curatorial studies, performance, and other creative perspectives and methods. Courses combine theory and practice and are grounded in culturally diverse artistic expressions.

All students are encouraged to complement the required set of core and elective department courses with others offered across campus, such as courses from ethnic and area studies programs, and may organize their course of study in relation to particular interests or professional goals (e.g., international comparative studies, intercultural studies, education, area specializations such as Africa, Asia, or Latin America, minority discourse, gender studies).
Graduate Study

The graduate program offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Culture and Performance and a Master of Fine Arts (MFA) in Choreographic Inquiry. Culture and performance students research communities, cultures, and transnational movements through heritage and globalization studies, multivocal ethnographies, dance and theories of corporeality and embodiment, visual and material culture, critical museum and curatorial studies, documentary practice and Internet interventions, as well as arts activism and interdisciplinary art making. The MFA in Choreographic Inquiry offers opportunities to engage multiple movement practices as students work on pioneering research in the form of new choreography. Students may focus on media, dance studies theory, and theories of the body as supplements to their work as choreographers.

The Art and Global Health Center within the department presents further opportunity for learning and practice.

While operating with considerable independence, the two graduate degree areas are unified by the department’s common concern for aesthetic production, corporeality and performance, the dynamics of tradition, and culture-building in contemporary societies. Connections are forged between critical theory and artistic practices, and attention is given to the changing social roles and responsibilities of artists, practitioners, and scholars of the arts in the U.S. and worldwide.

Undergraduates and graduates have excelled in fields including technology and the arts, video, documentary work, public service, education, theatrical/events production, performing arts, urban planning, law, environmental activism, public health, and medicine. They have made careers in community nonprofits and activist groups, government arts agencies, museums, and arts foundations. Potential careers for MA, PhD, and MFA graduates also include positions in research universities and colleges, and MFA graduates are active as choreographers/performers in their own companies or with other professional organizations.

Undergraduate Majors

Dance BA

All students take a set of courses as preparation for the Dance major that focus on the integration of dance and critical analysis. For students who transfer into the major, depending on the year of entry and prior coursework, lower-division preparatory coursework may be waived or substituted. When students enter the major, they continue their studies of dance technique, composition, and analysis, and they also enroll in a primary and secondary research area.

The three research areas are (1) creative inquiry as research, (2) critical dance studies, and (3) dance and civic engagement. The creative inquiry as research area is grounded in contemporary choreography with a focus on dance-making and performing in a wide range of genres from throughout the world. Opportunities are provided for students to present their own choreography, to participate in performances by others, and to study performance production and videography. The critical dance studies area focuses on study of scholarship examining the body and dance, in their cultural and historical contexts. Courses in dance history, dance and culture, and dance as an identifiable practice are offered that enable students to analyze the rhetorical and ideological significance of dance. The dance and civic engagement area is grounded in the investigation and activist-oriented work of artists and the role of dance in the public sphere, and offers a wide range of courses in the nature of activism as well as opportunities for fieldwork, education internships, and other forms of community involvement.

Students select one area as their primary area and another as their secondary area. Elective options provide further deepening of student knowledge and skills in any or all of the areas. Students may also consider courses from programs outside the department and may organize their course of study in relation to their particular interests.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor.

Learning Outcomes

The Dance major has the following learning outcomes:

- Choreography of dances in various settings, cultural contexts, and media, with emphasis on progressive approaches
- Creative problem-solving of issues tied to arts and activism, dance-making, and producing in multiple formats, in an intercultural and interdisciplinary context
- Think critically about the relationship between aesthetics and politics through choreography, written analysis, and multiple research methods
- Demonstrated advanced proficiency in at least two movement disciplines
- Analysis of vocabulary, location, and syntax of dance works
- Analysis of political, cultural, and historical implications of dance works
- Demonstrated ability to understand and implement collaboration in an art-making practice
- Written and oral recognition and synthesis of key concepts in critical dance studies

Entry to the Major

Admission

New students are admitted to the Dance major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For first-year applicants, college placement test scores are also considered. Students must participate in a late January/early February audition. Specifics about the audition are included in the e-mail requesting the above-mentioned supplementary materials.

Change of major applications are considered once a year. Current UCLA students who petition to change their major are required to meet with the student affairs officer prior to application, but no later than the eighth week of fall quarter in order to participate in the departmental supplemental application process during fall/winter quarters for admission into the program the following spring or fall quarter. They are required to take selected departmental courses before and during the term in which they apply to the program (contact the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. All students are required to audition in early winter quarter and may be interviewed as part of the application process.

Requirements

Preparation for the Major

Required: Dance 1, 16, 44, 45, 67A, 67B, 70.

The Major

The Dance major consists of 76 units of coursework.

Required: (1) Dance 101, 117A, 117B and (2) 10 units in the primary area and 5 units in the secondary area selected from the following: (a) creative inquiry as research—Dance 114, 116, 117C, C122, 170, C171, 174A, C174B, C180, or other upper-division courses with faculty approval, (b) critical dance studies—Dance C145XP, C152, M157, 158, 160, CM168, C171, 182, World Arts and Cultures 199, or other upper-division courses with faculty approval, (c) dance and civic engagement—Dance 114, C184, World Arts and Cultures 100A, 100B, 103, 144, 160, 177XP, 195, or other upper-division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this area). Students also have the option to propose a senior honors project through Dance 186A and 186B.

Movement Arts/Dance Practices—Required: A total of 48 units of practice courses. A minimum of two technique courses per term until completion is strongly recommended. Thirty of the total 48 units must be selected from Dance 6, 9, 13, 15, 56, 59, 63, 65, C106A, C113A, C115, 116. Of these 30 units, a minimum of 6 units of a first style and 4 units of a second style must be at the advanced level. Eighteen of the total 48 units may be selected from Dance 5, 10, 11, 12, 16, 52, 60, C112A, 116, 160, World Arts and Cultures 55, 78, 80, 178. No more than 8 units of World Arts and Cultures 78 or 178 may be applied toward this requirement.

Senior Honors Project

Students may participate in a senior honors project consisting of 10 additional units. The project provides students with opportunity to
demonstrate mastery and integration of knowledge and learned abilities from the major. The project may take various forms—from choreographic performance projects or an academic research paper to field/internship work in an identified area of research focus. With faculty advising, students must declare their intent to participate by spring quarter of their junior year. They identify a faculty mentor and work closely with that person on the development of the project, submitting a senior project proposal for faculty approval by the beginning of the senior year. In their senior year they enroll in a two-term course sequence (Dance 186A, 186B) to coordinate and present their research findings.

World Arts and Cultures BA

The World Arts and Culture major emphasizes a cross-cultural and interdisciplinary approach to the study of art making, community engagement, and multimedia analysis. The five required preparation for the major courses introduce students to the intersectionality evidenced in the collective work of the faculty. A lower-division, practice-based course enables students to connect the practice and study of art-making across a variety of genres and forms. In three lower-division seminars, students are prepared for the major by studying theoretical concepts of culture, the tensions between local and global art perception, and the diverse ways that colonialism has been understood and resisted around the globe.

Building upon the foundational preparation courses, the required core courses of the major expand interpretive lenses to include ethics of representation, methods of research, an opportunity to build upon one’s practice-based experience, and a one-credit course that connects students with faculty advisers to increase awareness of field-specific scholarship, disciplinary methods, and various genres and forms for intellectual output, particularly as these might be articulated with post-graduate aspiration.

Students in the major have the option to pursue a senior praxis project. Working with faculty advisers, students will be able to develop a performance, film, event, multimedia production, and other possible forms of evidence of their education in the department.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor.

Learning Outcomes

The World Arts and Cultures major has the following learning outcomes:

- Demonstrated critical analyses of a variety of approaches to visual and performance-based art making and activism in cross-cultural contexts
- Interpretation of and, in some cases, conduction of field-based research within specific communities
- Demonstrated ability to conceptualize, plan, and exercise art, curatorial, and/or ethnographic projects that reflect a dynamic dialog between theory and practice
- Demonstrated sensitivity to diversity and cultural differences, particularly as articulated within various forms of governance, national and international policy, transnational art and curatorial practices, and museum and heritage sites
- Development of informed interpretations, not only of the way that art functions within communities but also how the links between art and community are created and represented
- Articulation of the value of civic engagement within a variety of arts-oriented social contexts

Entry to the Major

Admission

New students are admitted to the major for fall quarter only. All applicants are reviewed individually, based on submission of a written search 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.

Requirements

Preparation for the Major

Required: World Arts and Cultures 1, 2, 20, 24, 33.

The Major

The World Arts and Cultures major consists of 46 units of coursework.

Required: (1) World Arts and Cultures 100A or 100B, 102, 104, 124, 185; (2) 25 units from any World Arts and Cultures elective courses, or other upper-division courses with faculty approval.

Senior Praxis Project

Students may choose to complete a senior praxis project by completing 15 units of elective coursework and the following two courses (or 10 units of equivalent coursework with faculty approval). World Arts and Cultures 2 and 102 provide the foundational training in making practice-based techniques. Students begin to identify a project in the required World Arts and Cultures 185 Junior-Year Proposal course during their junior year. With the support of their instructor, students can be approved to choose the senior praxis project during their final three quarters of enrollment. Projects may include written theses, visual ethnographies, short films, curatorial projects, installations, short films, internships, community service, field-based research, as well as other formats. Projects are crafted in close consultation with faculty advisers to provide capstone experiences that draw together ideas and abilities from their WAC/D curriculum while positioning students for postgraduate opportunities.

Graduate Majors

Choreographic Inquiry MFA

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.

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, three hours; discussion, one hour. Examination of practices of choreography, improvisation, and technique in different cultural settings and historical eras. Introduction to field of dance studies through analysis of broad spectrum of philosophies and practices within global context, with focus on creative act of dance-making, thinking and understanding act of improvising, and diverse ways of training one’s body. By framing process of analysis within array of historical periods and cultural settings, development of capacity to engage with dance as lived social and artistic practice while refining critical seeing, thinking, and writing skills. P/NP or letter grading.

5. Moving Voice. (2) Studio, three hours. Experiential Investigation of voice as it relates to resonant, physical body. Working with primal qualities of voice and how it interfaces with breath, physical anatomy, and space around us. Physical approach to singing, with singing being defined in its broadest sense as all possible sounds emitted by human voice. May be repeated for credit without limitation. P/NP or letter grading.

6. Beginning West African Dance. (2) Studio, three hours. Beginning-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.

10. Beginning Martial Arts. (2) Studio, three hours. Beginning-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.

11. Yoga. (2) Studio, three hours. Beginning-level study of yoga. May be repeated for credit without limitation. P/NP or letter grading.

12. Beginning Special Topics. (2) Studio, three hours. Beginning-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.


15. Beginning Modern/Postmodern Dance. (2) Laboratory, four hours. Study of modern and/or postmodern movement practice. May be repeated for credit without limitation. P/NP or letter grading.

16. Beginning Improvisation in Dance. (2) Laboratory, four hours. Introduction to creative exploration in movement through improvisational and compositional exercises that access and develop imagination, find relationship between imagination and dance making, and enrich movement vocabulary. May be repeated for credit without limitation. P/NP or letter grading.

17. 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.

43. World Dance Histories. (5) Lecture, three hours; discussion, two hours. Comparative framework for looking at dance practices through time as they have developed around world, questioning relation of dance to politics and culture 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. Introduction to discipline 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.

63. Intermediate Ballet. (2) Studio, three hours. Intermediate-level study of ballet as movement practice. May be repeated for credit without limitation. P/NP or letter grading.

65. Intermediate Modern/Postmodern Dance. (2) Studio, four hours. Intermediate-level work in modern and/or postmodern movement practices. Technical training with emphasis on increasing skill. May be repeated for credit without limitation. P/NP or letter grading.

67A. Theories and Methods in Dance Composition I: Languages. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: course 67A. Examination process through which creation of dance can take place. How do different choreographers conceptualize creative process of dance-making? What kinds of strategies do they develop for sequencing their materials? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Readings about and viewing of videos of selected artists’ work and their different strategies for their processes of creating dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

70. Production Practicum. (2) Lecture, 90 minutes; activity, three and one half hours. Introduction to production processes involved in variable movement practices. Enforced requisites: course 67A. Examination of the production processes involved in variable movement practices. P/NP or letter grading.

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117C. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation 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 these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117D. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Examination of creation in context of developing theme-based choreographic works that are informed by theoretical engagement with 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; construction of identity. May be repeated for credit without limitation. P/NP or letter grading.

117E. Advanced Topics in Choreography. (4) Studio, four hours. Enforced requisites: courses 67A, 67B. Designed to give student professional experience working with a dance company or other professional theater. P/NP or letter grading.

117F. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation 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 these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117G. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation 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 these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117H. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation 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 these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

Upper-Division Courses

101. Theories of Dance. (5) Lecture, four hours; discussion, two hours. Enforced requisites: course 45. Ideas of dance, choreography, and movement have achieved broad resonance in contemporary performance, art, politics, culture, and studies of social behavior. Examination of concepts and approaches to dance studies and deployments of its vocabulary within field and beyond, concentrated in four principal approaches: history, ethnography, choreographic analysis, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodiment, social constructions of identity and difference, and relationship between aesthetics and politics. Design of a dance performance to illustrate link between theory and practice. How dance creates alternative space for sequencing of temporal and spatial elements in dance. P/NP or letter grading.

C106A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. Concurrently scheduled with course C406A. P/NP or letter grading.

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.

C112A. 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 C412A. P/NP or letter grading.

113. Beginning Ballet. (2) Studio, three hours. Beginning-level study of ballet as movement practice. May be repeated for credit without limitation. P/NP or letter grading.

114. Performance Practicum. (1 to 4) Studio, three to twelve hours. Rehearsal and performance in selected choreographic/theatrical work. May be repeated for credit without limitation. P/NP grading.

115. Advanced Modern/Postmodern Dance. (2) Laboratory, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C415A. P/NP or letter grading.

116. Advanced Improvisation in Dance. (2) Studio, four hours. Enforced requisites: course 16. Development of aesthetic perspective, exploring the visual, textural, 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. P/NP or letter grading.

117A. Theories and Methods in Dance Composition III: Locations. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of how local 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. P/NP or letter grading.

117B. Theories and Methods in Dance Composition IV: Projects. (4) Seminar, four hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation 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 these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.
174A. Projects in Dance. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit without limitation. P/NP or letter grading.

C174B. Projects in Dance. (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/NP or letter grading.

182. Dance and Visual Media. (4) Lecture, four hours. Examination of aesthetic differences between dance, film, and video, and approaches to new aesthetic forms when they are combined. Analysis of record and documentary dance film, choreo-cinema, and impact of MTV, as well as integration of media with performance. Letter grading.

C180. Dance for Camera. (4) Lecture, two hours; laboratory, two hours. Introduction to making dance for camera. Students acquire and apply basic video production 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. Student projects involve choreography, performance, cultural studies, production, and media. Letter grading.

C180A-186B. Senior Projects in Dance. (5-6) Lecture, four hours; outside study, 11 hours. Course 186A is requisite to 186B. Limited to Senior Dance majors. Application of concepts, skills, and content from interdisciplinary major to individual projects. Methodologies may include critical, comparative, ethnographic, and performance approaches. Lecture/semiminar format 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 supplemental readings, papers, and projects. May be repeated for credit without limitation. Concurrently scheduled with course C189B. P/NP or letter grading.

Graduate Courses

211A-211E. Advanced Choreography. (4 each) Lecture, two hours; studio, two hours. Theoretical aspects of advanced choreography for students who have reached level of self-initiation of substantial creative work. Emphasis on composing and realizing substantial works. Critique by acknowledged choreographers. S/U or letter grading.

C222. Music and Dance Collaborations. (4) Studio, four hours. 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, and composers to explore and combine their innovation and developing material in their respective disciplines. Exploration of different forms and ways of approaching creative process of making dance and music, presentation of individual projects, and developing skills 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 C245S. Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corporeality. Concurrently scheduled with course C258. P/NP or letter grading.

C252. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio; two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C152. S/U or letter grading.

C258. 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. Foundationual 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 refine their own work. May be repeated for credit without limitation. Concurrently scheduled with courses 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 conceptualization, practice, theory, history, and current state of dance for camera. Concurrently scheduled with course C280. Letter grading.

CM168. Beyond Academia: Making Art in Real World. (4) Same as World Arts and Cultures CM168. Lecture, three hours; laboratory, two 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.

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. Concurrently scheduled with course C106A. S/U or letter grading.

C409A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C109A. S/U or letter grading.

C412A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C112A. S/U or letter grading.

C413A. Advanced Ballet. (2) Studio, three hours. Advanced-level study of ballet as movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C113A. S/U or letter grading.
1. Introduction to World Arts and Cultures. (5) Lecture, three hours; discussion, one hour. Survey of selected Native North American cultures (Same as American Indian Studies M10.) Lecture, four hours; discussion, one hour. Examination of interactions among various modes of cultural identity through arts, creation of dance/theatrical performances, and influence of American experience on shaping folklore in American society; attention also to representative areas of inquiry and analytical procedures. P/NP or letter grading.

2. Lower-Division Seminar. (5) Lecture, three hours; discussion, one hour. Enforced requisite: completion of 16 units. S/U or letter grading.

3. Colonialisms and Resistance. (5) Lecture, three hours; discussion, one hour. Introduction to study of indigenous worldviews as they are expressed through art, mythologies, ritual, health practices, languages, and ecology. With examples spanning globe, consideration of indigenous religious change, and legal and social implications of epistemological differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.

4. 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 intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

5. Video Tools and Techniques. (2) Laboratory, four hours; production assistants, and producer. May be repeated for maximum of 24 units. S/U or letter grading.

6. 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 intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

7. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three hours; outside study. Directed field study to provide teaching experience in studio, research, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

8. 100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Design for juniors/seniors. Discussion of what constitutes artist’s social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of art and politics of power. P/NP or letter grading.

9. 100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One’s ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies for empowerment, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.

10. 200. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Advanced-level work in modern and/or postmodern movement practices. Technical training, with emphasis on increased understanding of movement principles and ability to apply these to performances. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U or letter grading.

11. Directed Field Study in Dance Education. (2 to 8) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. More than 4 units may be applied toward MA degree requirements. S/U or letter grading.

12. 211. Introductory Anthropology: Local Lives. (5) Lecture, three hours; discussion, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

13. 212. World Arts, Local Lives. (5) Lecture, three hours; discussion, one hour. Examination of interactions among various modes of cultural identity through arts, creation of dance/theatrical performances, and influence of American experience on shaping folklore in American society; attention also to representative areas of inquiry and analytical procedures. P/NP or letter grading.


15. 214. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours; outside study. Studio, three hours; outside study. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

16. 215. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three hours; outside study. Directed field study to provide teaching experience in studio, research, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

17. 216. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Design for juniors/seniors. Discussion of what constitutes artist’s social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of art and politics of power. P/NP or letter grading.

18. 217. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One’s ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies for empowerment, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.


20. 219. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours; outside study. Studio, three hours; outside study. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

21. 220. Private Instruction in World Arts and Cultures. (2 to 4) Studio, three hours; outside study. Directed field study to provide teaching experience in studio, research, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

22. 221. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Design for juniors/seniors. Discussion of what constitutes artist’s social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of art and politics of power. P/NP or letter grading.

23. 222. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One’s ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies for empowerment, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter 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 responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of art and politics of power. P/NP or letter grading.

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One’s ability to distinguish between right and wrong action is culturally intuited, nurtured, and developed. Study of cultural strategies for empowerment, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Discussion of what constitutes artist’s social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of art and politics of power. P/NP or letter grading.

102. Upper-Division Seminar. (5) Seminar, three hours. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

103. Arts in Communities. (5) Lecture, four hours. In-depth examination of one pertinent area of World Arts. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

104. Representations, Theories, and Practices. (5) Lecture, three hours. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.
terrogating divides and overlaps between intellectual and artistic practice and mixing theory with practice. The emphasis is on developing critical thinking and analytical skills, as well as on the ability to communicate and present ideas. Students will work on projects that investigate specific theoretical issues and apply them to real-world problems. Students will present their work in written and oral presentations, and prepare for public and academic conferences.

121. Ethnography and Performance. (4) Lecture, four hours; discussion, two hours. Concurrently scheduled with course C228, four hours. This course examines the use of ethnography in performance studies, focusing on the ways in which performance can be used to understand and communicate the experiences of marginalized communities. Students will engage with a variety of performance practices, including theater, dance, and visual art, to explore the role of performance in shaping social and cultural identities. Students will also have the opportunity to develop their own performance projects and to present them in a variety of venues.

122. Healing across Cultures. (5) Lecture, two and one half hours; discussion, one hour. This course explores the role of healing in human societies, with a particular focus on the ways in which different cultures have developed strategies for addressing physical and emotional pain. Students will engage with a wide range of cultural traditions, including indigenous knowledge systems and contemporary approaches to healing. The course will also consider the ways in which healing practices have been adapted and transformed in the modern world.

124. Introduction to Field-Based Research Methods. (5) Lecture, three hours. This course introduces students to the methods and techniques used in field-based research, with a particular focus on data-gathering procedures, ethical concerns, sampling, checks and controls, teamwork, interventions, and results, as well as on the types of data that can be collected using these methods. Students will also have the opportunity to develop their own research projects and to present them in a variety of formats, including written reports and oral presentations.

C123. Food Customs and Symbolism. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include sensory realm, body, rearing practices, foodshaming, food and identity, food and its role in social and cultural practices, advertising, changing food habits, and American diet. Concurrently scheduled with course C229, P/NP or letter grading.

C130. Space and Place. (4) Same as Architecture and Urban Design 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 behavior and physical environment. Emphasis on common, ordinary, anonymous, or vernacular nonbuilt and built environments, which are built and used by members of small-scale, traditional, and transnational communities around world. Concurrently scheduled with course CM230, P/NP or letter grading.


133. Textiles of World. (4) Lecture, four hours; discussion, one hour. How cloth and clothing was and continues to be worn-handwoven in indigenous societies. Lectures, readings, and video materials focus on performance of ritual and its expression in textile art. May be repeated twice with consent of instructor. P/NP or letter grading.

C138. American Indian Arts in Performance. (4) Seminar, four hours. Acquisition of awareness and sensitivity to dynamics of performance, emphasis on Native American worlds of performance and material culture and development of ability to focus on and learn to conduct research on them. Emphasis on value system of Native American dance and craft traditions that allow full expression of personal and cultural identity. Instructor's permission. P/NP or letter grading.


CM140X. Healing, Ritual, and Transformation. (4) (Formerly numbered CM140) (Same as Gender Studies CM143XP) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Examination of how various cultures think of health and wellness, not only individually but collectively. Exploration of structural inequalities within health care and medical sciences. Students are required to complete a service learning component with individuals and organizations in fields of health and wellness as healers, non-profits, and organizations working for social justice. May be concurrently scheduled with CM240XP. Letter grading.

C142. Myth and Ritual. (4) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Examination of how myths make sense of the world and its peoples, Purposes, and places. Rituals embody and activate myths through dramatic acts and symbolic events. Concurrently scheduled with course C242, P/NP or letter grading.

143B. Introduction to Museology: Museum Exhibitions and Education. (4) Seminar, four hours. Conceptual development of exhibitions and formulation of educational and other goals for specified audiences. Design considerations, media applications, and installation process. P/NP or letter grading.

World Arts and Cultures/Dance / 861
144. Make Art/Stop AIDS. (5) Lecture, four hours; studio, two hours. Can arts save lives? That is central question posed here in relation to global AIDS epidemic. Working in close connection with public health and epidemiology, exploration of arts as powerful effective tool of education and treatment. Review of literature of AIDS cultural analysis that emerged in late 1980s in U.S. and application of that literature to international hot spots such as India, China, South Africa, and Brazil. Collaborative theory-in-action projects. P/NP or letter grading.

C145. Curating Cultures. (4) Lecture, three hours. Exploration of poetics and politics of exhibiting non-Western arts and cultures. Series of provocative case studies, viewing, guided discussions, and group presentations addressing themes in curatorial theory and practice. Concurrently scheduled with course C245. P/NP or letter grading.

C146. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for juniors/seniors. Opportunity to reflect on artists and intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such keywords as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C246. P/NP or letter grading.

C150. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and theories in art and culture through documentary ethnographic method as key component of cross-cultural understanding. Examination of categorical notions of insider and outsider while also developing various perspectives of cultural praxis, identity, and social art. Required outside study, eight hours. Concurrently scheduled with course C250. P/NP or letter grading.

C151. Ethnography of Religions. (4) Lecture, three hours. Required course on cultural systems helping people cope with misfortune, 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 affirms the sacred. Lectures, seminar, and outside study, 11 hours. Concurrently scheduled with course C251. P/NP or letter grading.

C152. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, race, class, and nation? Theories and case studies from anthropology, sociology, art history, and philosophy permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include scopic 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. Histriornizing and theorizing of arts activism to provide context for concerted analysis, creation, and protest. Readings include theoretical texts and current performance histories. Consideration of particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts activism projects often are local but supported and encouraged. Concurrently scheduled with course C258. P/NP or letter grading.

C159. Art and Global Health. (4) Seminar, three hours. Exploration 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. Seminar members propose their own arts-intervention projects for community-based art and artists, and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

M179. Food Activism in Los Angeles: Narrating Pasts, Imagining Futures (Same as Food Studies 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 and care farms. Through ethnographic and oral history methodologies, students learn how food activists organize themselves, and mobilize creativity to counteract injustice. Focus on relationships between food access, food oppression, food politics, and food ethics; and social histories of race, class, urban planning, and housing discrimination. P/NP or letter grading.

C180. Variable Topics in Video Production/Prac- tice. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experiential film. Introduction to history, ethics, and aesthetics of documenting subjects such as culture, performance, and dance among range of forms for bodily expression and experience. Film and independent video, narrative, documentary, and theories, ethnography, and phenomenology used to create innovative and critical forms of visual documentation. Skills include cinematography, sound recording, postproduction, editing. May be reenrolled once for credit. Concurrently scheduled with course C280. Letter grading.

C181. Ethnographic Film. (4) Lecture, four hours. Survey of ethnographic film and video, with focus on study of expressive cultural performance as critical and comparative approaches to visual study of culture, community, and arts. P/NP or letter grading.
Graduate Courses

200. Theories of Culture. (4) Seminar, three hours; outside study, nine hours. Introduction to history of culture in the arts, humanities, and social sciences. Analysis of contemporary debates concerning ownership and use of word culture, and critical elucidation of study of culture. S/U or letter grading.

201. Theories of Performance. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of classic and contemporary studies of performance and related aesthetic practices. Familiarization with ways in which performance is defined and deployed by scholars working in disciplines of anthropology, dance, folklore, linguistics, literature, musicology, performance studies, philosophy, sociology, and theater. S/U or letter grading.

202. Research Methodologies. (4) Seminar, three hours; outside study, nine hours. Hands-on course designed to help students develop understanding of many developed qualitative research methods and designs they encounter in their work. Identification and creation of research problems, development of design, actual data collection, and analysis procedures to address those problems. S/U or letter grading.

203. Proseminar: Dance Studies. (4) Seminar, three hours; outside study, nine hours. Survey of theoretical issues and problems in study of dance and movement in cultural, social, and historical context. S/U or letter grading.

204. Theories of Corporeality. (4) Seminar, three hours; outside study, nine hours. Cross-cultural and interdisciplinary perspectives on human body. Topics include representations of 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 context. Field documentation, participant observation, oral history and interview techniques, performative dimensions of ethnographic research, ethics, and politics of ethnographic representation. 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 scholarship about the role of indigenous peoples, focus on intersection of writing, colonialism, violence, and historiography in Americas. Exploration of relationship between 16th-century reasoning about race and postmillennial, 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 religions in Southwest Colombia, 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. (5) Same as African 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 theater addressing social justice issues in current political and social justice system. Critical texts, collaborative work, and creative methods are used to engage perspectives on justice. Analysis of diverse and growing body of work on systems of justice through research, writing, workshops, performances, and critiques of original writings and performances developed in response to visiting scholars, community partners. Concurrently scheduled with course CM113B. S/U or letter grading.

216. Analyzing Narrative and Oral Performance. (5) Lecture, four hours. Designed for graduate students. Exploration of and development of narrators and their interpreting their stories and repertoires; how narrators conceptualize and perform narrative discourse, impact of audience and situated event on both narrator and story, how narrator and values are communicated through narrative, modes of representing oral narrating, and politics of narrative and oral performance. CLASSES ARE HELD TUESDAY AND THURSDAY. S/U or letter grading.

220. Seminar: Culture and Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Variable topics in interdisciplinary study of expressive culture, arts, and performance in social and historical context. May be repeated for credit with topic change. S/U or letter grading.

C229. Food Customs and Symbolism. (4) Lecture, three hours. Designed for graduate students. Introduction to food and attention to customs and symbolism in America. Topics include sensory realm, child rearing practices, foodsharing, food and identity, and food’s emotional significance, aversions and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course C129. S/U or letter grading.

CM230. Space and Place. (4) (Same as Architecture and Urban Design CM230,) Lecture, three hours. Survey array of categories from cross-cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, organic, anonymous, or vernacular nonbuilt and built environments, which are built and used by members of small-scale, traditional, and transitional communities and around world. Concurrently scheduled with course C131. S/U or letter grading.

C238. American Indian Arts in Performance. (4) Seminar, four hours. Acquisition of awareness and sensitivity to dynamics within Native American worlds of performance and material culture and development of ability to focus on them and learn to conduct research on them. Examination of wide range of American Indian art and craft traditions within fullest possible range of such contexts, with performance given its most generous definition. Study of spectrum of genres, including architecture, social and dance regalia, masks, and utilitarian material culture, to investigate how objects and people move 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 on 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,) Lecture, four hours; outside study, eight hours. Designed for graduate students. Exploration of how various cultures think of health and wellness, not only individually but collectively. Exploration of one-off-white health care and medical sciences. Students are required to contribute weekly to service learning component, working with individuals and organizations in fields of health and wellness. Concurrently scheduled with course CM140XP. Letter grading.


C246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Opportunity to reflect on artists and intellec- tuals as cultural workers operating in domains of ideology, aesthetics, and theory, as well as such key words as ideology, aesthetics, theory, art, politics, intervention, intellectuals, and artists. Concurrently scheduled with course C146. S/U or letter grading.

C250. Critical Ethnographic and Cross-cultural Studies. (4) Seminar, three hours. Enforced requisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic method as key component of cross-cultural understanding. Examination of categorical notions of insider and outsider while also developing various perspectives on performed acts of identity formation. Concurrently scheduled with course C150. S/U or letter grading.

C251. Ethnography of Religions. (4) Lecture, three hours. Religions are cultural systems helping people to cope with misfortune, deal with death, and find fulfillment in life. Case studies reveal commonalities across cultures as concepts and modes of being in world, divination determines causes of difficulty, spirit mediumship embodies divine intervention, and sacred arts render deities tangible. Nonjudgmental comparative investigation. Concurrently scheduled with course C151. S/U or letter grading.


C258. Theorizing Arts Activism. (4) Seminar, three hours. Historicizing and theorizing of arts activism to provide context of construction, and analysis, and protest. Readings include theoretical texts and current performance histories. Consideration of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts activism 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. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course C159. S/U or letter grading.

CM268. 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 publishing and arts administration. 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. Explora- tion of how individual voice, and unusual soundscapes and patterns; body (clapping, stepping, and singing, and hardware). 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 80. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experimental film, introduction to history, ethics, and aesthetics of documenting subjects such as culture, observation, and dance among range of forms for bodily expression and experience. Film and documentary theory, ethnography, and phenomenology used to create innovative and critical forms of visual documentation. Skills include cinematography, sound recording, interviews, and digital editing. May be repeated once for credit. Concurrently scheduled with course C180. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. 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, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

478. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours; outside study, three to 12 hours. Private or semiprivate instruction with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. S/U grading.

480. Seminar: Research Topics. (2 to 4) Seminar, 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 complete 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 hours. Directed work in preparation of course syllabi and discussion of topics relevant to teaching development skills. Fundamental principles and methods with which to design course syllabi and gather resources for courses. Topics include development of teaching philosophy, evaluating/lecturing 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 Clinic. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examination. (2 to 8) Tutorial, to be arranged. Preparation for MA or MFA comprehensive examination or PhD qualifying examination. S/U grading.


WRITING PROGRAMS

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Overview
Writing Programs is committed to inclusive pedagogy and student success, serving undergraduates through a curriculum in composition and English as a second language (ESL), as well as through the Undergraduate Writing Center (UWC). Writing Programs serves as the chief resource for writing and English language instruction through entry-level writing, first-year composition, writing-in-the-disciplines, and professional writing courses. Its courses play a vital role in preparing undergraduates from diverse linguistic and academic-skill backgrounds to succeed as writers/communicators in their UCLA studies as well as in future professional contexts. Writing Programs’ courses facilitate discovery, understanding, analysis, inspiration, community building, and global citizenship.

In addition, Writing Programs serves international graduate students as writers and communicators through graduate-level academic writing courses that satisfy the UCLA ESL requirement, elective writing workshops, and oral communication courses for international students who plan to serve as TAs and need to satisfy the Test of Oral Proficiency (TOP) requirement.

During the summer, matriculated UCLA students can complete some of their undergraduate writing requirements. Writing Programs also offers international summer visitors a suite of second language writing and communication courses.

Writing Programs works closely with the Office of Equity, Diversity, and Inclusion to help all students experience academic belonging, and bring together members of the UCLA and Los Angeles communities through service learning courses, summer bridge programs for high school students, the UCLA prison education program, and public events. Writing Programs educational initiatives promote the impact of writing, writing a 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, imagine, think and rethink, and ultimately, to learn. Writing Program’s undergraduate teaching mission is extended by the UWC, which aids thousands of students annually from all disciplines and all divisions at UCLA to communicate effectively in their coursework.
Entry-Level Writing
Every student who does not satisfy the Entry-Level Writing requirement by presenting transfer credit or acceptable test scores is required to take, as early as possible during the first year in residence, English Composition 1, 1A, 1B, 2, or 2I as determined by performance on the Analytical Writing Placement Examination (AWPE). Students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the AWPE before entering UCLA must take it in their first term. For more information, see Entry-Level Writing in Undergraduate Study.

English as a Second Language Requirement
All entering undergraduate students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement may be required to take one or more English composition courses designed for multilingual students (1A, 1B, 2I). First-year undergraduate students are placed in the courses based on the AWPE. Transfer students are placed in the courses based on the UCLA English as a Second Language Placement Examination (ESLPE). Transfer students who are required to take the ESLPE include those who have not yet satisfied the Intersegmental General Education 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 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 (TOEFL), or at least a 7.5 overall band score on the International English Language Testing System (IELTS) examination. See International Applicants in Graduate Study.

Writing Programs offers a graduate certificate in Writing Pedagogy.

English as a Second Language
Lower-Division Courses
19. Flat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
20. Conversation and Fluency. (4). Lecture, four hours. Emphasis on speaking fluently in English by examining rules of conversation, active 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 audio- and videorecording technology. Offered in summer only. P/NP or letter grading.
22. Public Speaking. (4). Lecture, four hours. Emphasis on making presentations, interacting with audience members, and leading group discussions. Videorecording of student performances to allow students to improve through self and peer evaluation, as well as through individualized instructor feedback. Offered in summer only. P/NP or letter grading.
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, 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 industries, 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.

Graduate Certificate

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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. Students also learn to use variety of videorecorded models and online pronunciation resources. Individualized feedback provided through frequent recording assignments. P/NP 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 and peer evaluation, as well as through individualized instructor feedback. P/NP or letter grading.


106. Workshop in Disciplinary Writing for Multilingual Students. (4) Lecture, four hours. Review of form and use of common grammatical structures found in academic discourse. Analysis of stylistic function of certain structures in writing and practice in self-editing strategies. Enforce requisite: satisfaction of English as a Second Language requirement. Writing of texts that are rhetorically appropriate for discipline-specific audiences. Extensive revising of papers to allow writers to edit their texts for grammatical appropriateness and for clear and coherent style. Focus on language and writing issues of concern to multilingual writers. P/NP or letter grading.

107. Academic Reading and Vocabulary for Multilingual Students. (4) Lecture, four hours. Instruction in and practice of academic reading skills using authentic university texts. Emphasis on improving reading rate and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP or letter grading.

108. Literature and Language 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 literature written in English. Review of literary techniques and terms and to deepen understanding of poetry, short stories, and novels. Focus on author styles and grammatical and vocabulary choice in literary works. 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 English as a Second Language. (4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study for undergraduate and graduate students who desire more advanced or specialized treatment of English as second language beyond those covered in current course offerings. Scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible writing exercises of subject matter required. May be repeated for credit. Individual contract required; see academic coordinator. P/NP (undergraduates), S/U (graduates), 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 reading, writing, and language skills with focus on reading comprehension, vocabulary development, and rhetorical techniques, with additional work on grammar and editing. S/U or letter grading.

301. High-Intermediate Writing and Communication for International Graduate Students. (4) Lecture, five hours. Enforced requisite: course 300 or proficiency demonstrated on English as a Second Language Placement Examination. Development of academic reading, writing, and language skills with focus on reading comprehension, vocabulary development, and composition techniques, with additional work on grammar and editing. S/U or letter grading.

302. Advanced Writing Workshop for International Graduate Students. (4) Lecture, five hours. Requisite: course 301 or proficiency demonstrated on English as a Second Language Placement Examination. Writing and revising of papers for academic writing habitus in student fields of study. Emphasis on rhetorical strategies as well as stylistic and organizational conventions for presenting research-based arguments in disciplines including humanities, social sciences, and pure and applied sciences. Focus on grammar structures and vocabulary that contribute to clear and coherent writing style. S/U or letter grading.

310. Pronunciation for International Teaching Assistants. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who have received marginal pass on TOP. Focus on accurate articulation of sounds, word stress, linking, and other features of fluent spoken English, using authentic models of classroom language. Additional emphasis on comprehending typical under-graduate speech. Focus on articulation of words, phrases, and sentences. Use of videorecordings for self-correction and individualized instructor feedback. S/U grading.

311. Classroom Communication for International Teaching Assistants I. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who have 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 building and maintaining rapport, handling questions, and interacting in office hours. Microteaching performances videorecorded for self, peer, and instructor evaluation. S/U grading.

312. Classroom Communication for International Teaching Assistants II. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who have received marginal pass on TOP. Course 311 is not required for 312. Focus is on clear stress, rhythm, intonation, and fluidity of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include building and maintaining rapport, handling questions, encouraging participation, and organizing lessons. Microteaching performances videorecorded 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. Focus on communication effectively as teaching assistants through interactive teaching demonstrations and student-led discussions of topics from one’s own field. Emphasis on presenting academic subject matter in well-organized, interactive, and accessible way. Student performances videorecorded for extensive self, peer, and instructor evaluation. S/U grading.

English Composition

Lower-Division Courses

1. Introduction to University Discourse. (4) Lecture. Four hours. Requisite: proficiency demonstrated on Analytical Writing Placement Examination. Introduction to college-level critical reading and academic writing. Engagements with conventional and non-conventional texts and revision assignments through practicing and building on reading, writing, and rhetorical skills. Emphasis on revision, developing syntactic variety and academic vocabulary, and developing critical reading skills. P/NP or letter grading.

2. Letter grading.

1A. Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Enforced requisite: proficiency demonstrated on Analytical Writing Placement Examination (first-year students) or English as a Second Language Placement Examination (transfer students). Development of academic writing skills with focus on reading comprehension, vocabulary development, and fundamental composition techniques, with additional work on grammar and editing. Letter grading.

1B. High-Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Requisite: proficiency demonstrated on Analytical Writing Placement Examination (first-year students) or course 1A (C or better). Development of academic writing skills with focus on synthesizing sources, strategies of argumentation, academic reading, and vocabulary, with additional work on grammar and editing. Letter grading.

1C. Advanced Composition for Multilingual Transfer Students. (4) Lecture, four hours. Requisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course 1B (C or better). Development of academic writing skills with focus on writing process, grammatical structures, and writing in a more focused way with major forms of academic writing, with additional work on critical analysis of readings. Completion of course with grade of C or better satisfies English as a Second Language requirement. Letter grading.

2. Approaches to University Writing. (5) Lecture, four hours. Requisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course A (C or better). Development of academic writing skills with focus on writing process, grammatical structures, and writing in a more focused way with major forms of academic writing, with additional work on critical analysis of readings. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

3. Approaches to University Writing for Multilingual Students. (5) Lecture, six hours. Requisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course A (C or better). Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on strategies for developing coherent and well-argued pieces of academic writing and for achieving academic writing goals. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

3. English Composition, Rhetoric, and Language. (5) Lecture, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Not open for credit to students with credit for course 3DS. Development of academic writing skills with focus on strategies of argumentation, rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3D. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Not open for credit to students with credit for course 3DS. Development of academic writing skills with focus on strategies of argumentation, rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3DS. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Not open for credit to students with credit for course 3DS. Development of academic writing skills with focus on strategies of argumentation, rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.
vise learning and development of critical thinking skills about diversity through classroom discussion focused on readings and service-learning experiences, as well as through reflective and analytical writing and research. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3E. English Composition, Rhetoric, and Language for Engineers. (5) Lecture, three hours. Enforced requisites: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better), Rhetorical techniques and skillful expository writing. Analysis of varieties of academic prose, including technical writing and development of critical thinking skills. Minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3SL. English Composition, Rhetoric, and Language (Service Learning). (8) Lecture, three hours; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Service learning component includes meaningful work with off-campus agency selected by instructor. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

5W. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours. Enforced requisite: course 3. Use of analysis of literary works within cultural context to en- gage student with forms and vocabularies of language that are important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exer- cises. Satisfies Writing II requirement. Letter grading.

6W. Language, Culture, and Discourse. (5) Lecture, four hours. Enforced requisite: course 3. Study of structure and use of English and how it reflects social structure and cultural values. Readings in linguistic, cultural, and stylistic sophistication. Prerequisites: for graduate students must be in good academic standing and enrollment in one of the Honors Program courses that have information/literacy requirements. P/NP grading. May be repeated for credit with consent of instructor. P/NP or letter grading.

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisites: course 3 or 3H or English English as a Second Language 36. Designed for sophomores/juniors/seniors. Course in academic writing suitable for both lower- and upper-division students that helps them develop academic papers with range of complexity and length. Focus on conventions of academic prose and genres across disciplines. Written assign- ments include draft and revise of academic papers such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

100WD. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3, 3D, 3DS, or 3E. Course in academic writing suitable for both lower- and upper-division students that helps them develop academic papers with range of complexity and length. Focus on conventions of academic prose and genres across disciplines. Written assignments include common forms of academic writing such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Requis- ites: satisfaction of Entry-Level Writing requirement, course 3 or 3H or English. Concurrence or core- rolled in course offered in conjunction with course 110 (consult Schedule of Classes for courses so design- ated). Writing assignments use materials from ad- junct course and reflect and develop academic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition require- ments. Survey of topics in English linguistics of special interest to elementary school teachers. Sub- subjects include approaches to English grammar; lan- guage acquisition and development; language atti- tudes; regional and social dialects of American En- glish; bilingual education; communication of English language study to teaching of reading, writing, spelling, and literature. P/NP or letter grading.


123. Information Literacy and Research Skills. (1) Lecture, one hour. Preparation: satisfaction of Writing I requirement. Designed to help students become information literate, so they know how to identify, locate, critically evaluate, and use print and electronic infor- mation effectively and efficiently. Close reading of texts in reference to previous use of Writing Programs courses that have information/research-related assignments. P/NP or letter grading.

129A-129D. Academic Writing in Disciplines. (4 each) Lecture, four hours. Designed for juniors/seniors. Advanced study of writing conventions in spec- ific disciplinary areas, with focus on analysis and de- velopment of writing expertise in common discourse styles and rhetorical practices in given discipline. Each course may be taken indepen- dently for credit. P/NP or letter grading. 129A. Lit- erature; 129B. Social Sciences. Lecture, three hours; discussion, one hour; 129C. Physical and Life Sci- ences; 129D. Fine Arts.

130A. Professional Writing: Digital Writing and Web Literacy. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Em- phasis on writing for digital environments such as websites, blogs, newsletters, and social media. Common professional settings for these skills include journalism, political campaigns, Internet marketing, and corporate communications. Letter grading.

130B. Professional Writing: Business and Entrepre- neurship. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Em- phasis on developing written, oral, and visual commu- nication skills, for entrepreneurial and professional tasks including pitching idea, seeking funding for startup, or promoting product or service. P/NP or letter grading.

130C. Professional Writing: Science and Technolo- gy. (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: sat- isfaction of Entry-Level Writing requirement, course 3. Emphasis on writing for non-profits in areas such as film, television, theater, music, art/design, podcasts, and video games. Writing genres include critical reviews, recaps, promotional materials, treatments, and pro- files. P/NP or letter grading.

131A-131C-131D. Specialized Writing. (4–4–4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Des- signed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative sophistication in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading. 131A. Law and Politics; 131C. Medicine and Public Health; 131D. Media and Communication.

131B. Specialized Writing: Business and Social Policy. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition require- ments. Designed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative sophistication in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. May be taken independently for credit. P/NP or letter grading.

132. Variable Topics in Rhetoric and Writing. (5) (Formerly numbered 132D) Lecture, four hours. Requir- es: satisfaction of Entry-Level Writing requirement, course 3. Intensive study of rhetoric and writing within
132A–132B–132C. Topics in Rhetoric and Writing. (4–4–4) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course limited to 30 students independent of credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requisites must take it for letter grade. AA, Gender and Women's Studies, 132B. Autobiography and Writing, 132C. Cultural Studies.

133. Topics in Writing for Multimedia Environments. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Special 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.

134. Topics in Science Writing. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Special topics in professional writing exploring current 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. (5) (Formerly numbered 136.) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Focus on developing grammatical precision and rhetorical range in professional writing, combined with experience proofreading and editing another's own writing as well as that of others. P/NP or letter grading.

137. Writing for Public Speaking. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on careful preparation, rehearsal of public presentations and productions including design of effective visuals in various multimodal forms. Student performances videorecorded for extensive self, peer, and instructor feedback. P/NP or letter grading.

M138. Professional Writing Capstone. (4) Same as English M138.) 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 major specialization under close faculty supervision and in constructive writing group. Reading, discussion, oral presentations, rhetorical analysis, and developmental drafts. Students develop their capstone projects, including identifying appropriate models, generic expectations, and rhetorical choices. P/NP or letter grading.

188. Advanced Honors Seminars. (1) Seminar, three hours. Limited to graduate 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. 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. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

M192. Undergraduate Practicum in English: Journals. (2) Same as English M192.) Seminar, two hours. Training and supervised practicum for undergraduate 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. Requisites: 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 academic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in English Composition. (4) Tutorial, to be arranged. Requisites: course 3 or 3H. Limited to seniors. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

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 secondary school or college English curriculum. S/U or letter grading.

375. Teaching Apprentices 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 required. Prior application to graduate coordinator. May not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U grading.

401. Current Issues in University Writing Pedagogy. (4) Seminar, three hours. Limited to graduate students. Survey of literature on academic writing across curriculum. Examination of writing conventions, genres, and styles in graduate student academic disciplines, with focus on evolving academic discourse in emerging and hybrid areas of inquiry. Development of best practices for adapting writing pedagogy to changes in disciplinary academic discourse, with discussion of challenges for multilingual learners. S/U or 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 to articulate language-based insights of meaning. Integrates research and successful applications of knowledge for improved language-related instruction and feedback in composition studies. S/U or 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. Limited to 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 to articulate language-based insights of meaning. Integrates research and successful applications of knowledge for improved language-related instruction and feedback in composition studies. S/U or letter grading.

495B. Supervised Teaching of Language Learners. (2) Seminar, two hours. Enforced requisite: course 495A. Required of all English as second language (ESL) teaching assistants and open to students seeking Graduate Certificate in Writing Pedagogy. Focus on pedagogical issues specifically related to teaching academic reading and writing 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.

495C. Supervised Teaching of Language Learners. (2 to 4) Tutorial, to be arranged. Enforced requisite: course 495A. Required of all English as second language (ESL) teaching assistants each term they are assigned to teach ESL courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.

495D. Supervised Teaching of First-Year Composition. (4) Seminar, two hours. Enforced requisite: course 495A. Required of all English as second language (ESL) teaching assistants each term they are assigned to teach ESL courses. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.

495E. Supervised Teaching of First-Year Composi- tion. (2) Seminar, two hours. Enforced requisite: course 495C. 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.
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 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.

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. Training focused on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

M495I. Teaching Preparation Seminar: Writing for Engineers. (4) (Same as Engineering M495I.) Seminar, two and one half hours. Limited to graduate students. Required of all teaching assistants for Engineering writing courses 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. May be repeated for credit. 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 preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495K. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) (Same as Electrical and Computer Engineering M495K.) Seminar, two hours. Limited to graduate electrical engineering students. 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.

495M. 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 in quarter prior to their first Clusters seminar and open to students seeking Graduate Certificate in Writing Pedagogy. Training focused on developing writing-intensive seminar with emphasis on identifying course objectives, choosing appropriate readings, sequencing and scaffolding curriculum, drafting integrated assignments, and foregrounding writing in discipline-specific context. Production of syllabus for seminar that satisfies Writing II requirement. S/U grading.

495O. Supervised Teaching of Clusters Seminar. (2) Seminar, two hours. Requisite: course 495N. Required of all Clusters teaching assistants teaching their first Clusters seminar. 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 planning to teach English composition as part of AAP summer bridge programs. Focus on pedagogy that serves heterogeneous classrooms, with emphasis on diversity of race, socioeconomic status, citizenship status, and academic preparedness. Practical concerns include lesson planning and professionalization for composition instructors. S/U grading.

495S. Supervised Summer Teaching of Language and Composition. (2) Seminar, 90 minutes. Requisite: course 495A or 495C. Recommended for all teaching assistants teaching English as a second language, English composition, and Writing II courses during summer. Focus determined on individual basis according to class appointed and may include oral skills pedagogy, composition pedagogy, course design, assessment of student performance, and specialized problems that may occur in intensive summer language and/or composition courses. Supervision and feedback on teaching experience following summer appointment. S/U grading.

496. Special Projects in Language and Writing Pedagogy. (1 to 4) Tutorial, three hours. Limited to Writing and Composition. (1 to 4) Special projects, as arranged with faculty. Limited to graduate students. Recommended for all teaching assistants teaching Writing I or II courses, with the advice of the instructor. S/U grading.

499. Academic Professionalization Colloquium. (2) Colloquium/workshop, three hours every other week. Limited to graduate students. Rotating speakers on topics such as designing digital teaching portfolio, drafting academic/teaching curriculum vitae (CV), writing application letters for academic jobs, and pursuing alternative academic careers. Speaker sessions and panels to be followed by workshops. Revision of application letter, CV, teaching portfolio, or other relevant document to be determined in consultation with colloquium organizer. S/U grading.
Appendices

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
Gavin C. Newsom, Governor of California
Amanda Pouchot (2023), Vice President, Alumni Associations of UC
Anthony Rendon, State Assembly Speaker
Tony K. Thurmond, State Superintendent of Public Instruction
Sandra Timmons (2023), President, Alumni Associations of UC

Appointed Regents

Maria Anguiano (2028)
Michael Cohen (2030)
Gareth Elliott (2025)
Howard Peter Guber (2029)
Jose M. Hernandez (2033)
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)
Marlenee L. Blas Pedral (2023), Student Regent

Faculty Representatives

Susan Cochran (2023), Senate Chair
James Steintrager (2023), Senate Vice Chair

Staff Adviser

Priya Lakireddy (2023), Merced

Officers of the Regents

Alexander Bustamante, Senior Vice President; Chief Compliance and Audit Officer
Gareth Elliott, Vice Chair
Richard Leib, Chair
Gavin C. Newsom, President

Charles F. Robinson, Vice President; General Counsel
Anne Shaw, Secretary and Chief of Staff
Jagdeep Singh Bachher, Vice President, Investments; Chief Investment Officer

UC Office of the President

Michael V. Drake, University President
Nathan Brostrom, Executive Vice President; Chief Financial Officer
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
Brent Colburn, Senior Vice President, External Relations and Communication
Jagdeep Singh Bachher, Vice President, Investments; Chief Investment Officer
Pamela Brown, Vice President, Institutional Research and Academic Planning
Yvette Gullatt, Vice President, Graduate, Undergraduate, and Equity Affairs; Vice Provost
Glenda Humiston, Vice President, Agriculture and Natural Resources
Craig Leasure, Vice President, National Laboratories
Cheryl Lloyd, Vice President, Human Resources
Theresa A. Maldonado, Vice President, Research and Innovation
Charles F. Robinson, Vice President; General Counsel
Van Williams, Vice President, Information Technology Services; Chief Information Officer
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
Darnell M. Hunt, Executive Vice Chancellor and Provost
Michael J. Beck, Administrative Vice Chancellor
Allison Baird-James, Vice Chancellor; Chief Financial Officer (Interim)
Monroe Gorden, Jr., Vice Chancellor, Student Affairs
Michael S. Levine, Vice Chancellor, Academic Personnel
John C. Mazzio, Vice Chancellor, Health Sciences
Louise C. Nelson, Vice Chancellor, Legal Affairs
Mary Osako, Vice Chancellor, Strategic Communications
Anna Spain Bradley, Vice Chancellor, Equity, Diversity, and Inclusion
Rhea Turteltaub, Vice Chancellor, External Affairs
Deans of the UCLA College and Schools

College of Letters and Science
Adriana Galván, Undergraduate Education Division
Miguel A. García-Garibay, Physical Sciences Division
Tracy L. Johnson, Life Sciences Division
Alexandra Minna Stern, Humanities Division
Abel Valenzuela, Jr., Social Sciences Division (Interim)
Brett B. Steele, School of the Arts and Architecture
Paul H. Krebsbach, School of Dentistry
Christina A. Christie, School of Education and Information Studies
Bruce S. Dunn, Henry Samueli School of Engineering and Applied Science (Interim)
Susan L. Etter, Graduate Division, Graduate Education
Russell Korobkin, School of Law (Interim)
Antonio E. Bernardo, John E. Anderson Graduate School of Management
Ronald S. Brookmeyer, Jonathan and Karin Fielding School of Public Health
Brian E. Kite, School of Theater, Film, and Television (Interim)
Steven M. Dubinett, David Geffen School of Medicine (Interim)
Gary M. Segura, Meyer and Renee Luskin School of Public Affairs
Eileen L. Strempel, Herb Alpert School of Music
Lin Zhan, School of Nursing
Eric A. Bullard, University Extension, Continuing Education

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
Momentum Endowed Chair in Special Patient Care
Nobel Biocare Endowed Chair in Surgical Implant Dentistry
Dr. No-Hee Park Chair in Dentistry
Tarrson Family Endowed Chair in Periodontics
Jack A. Weichman Chair in Endodontics
Bob and Marion Wilson Endowed Chair
Felix and Mildred Yip Endowed Professorship in Dentistry

School of Education and Information Studies
Martin and Bernard Breslauer Professorship in Bibliography
Allan Murray Carter Chair in Higher Education
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. Boelter 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 for Innovation
Levi James Knight, Jr., Term Chair for Excellence
Fang Lu Endowed Chair in Engineering
J.M. Maguire Term Chair in Engineering
Richard G. Newman AECOM Endowed Chair in Civil Engineering
Nippon Sheet Glass Company Chair in Materials Science
Northrop Grumman Chair in Electrical Engineering
Northrop Grumman Chair in Electrical Engineering/Electromagnetics
Northrop Grumman Opto-Electronic Chair in Electrical Engineering
Mukund Padmanabhan Term Chair
Mukund Padmanabhan Term Chair Electrical Engineering
Ralph M. Parsons Foundation Chair in Chemical Engineering
Jonathan B. Postel Chair in Computer Systems
Jonathan B. Postel Chair in Networking
Pritzker Chair in Sustainability
Raytheon Company Chair in Electrical Engineering
Raytheon Company Chair in Mechanical Engineering
Charles P. Reames Endowed Chair in Electrical Engineering
Ben Rich Lockheed Martin Chair in Aeronautics
Sabol-Scott Term Chair in Civil and Environmental Engineering
John P. and Claudia H. Schauerman Endowed Chair in Engineering
William Frederick Seyer Chair in Materials Electrochemistry
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

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School of Law
Norman Abrams Endowed Chair in Law
Omar and Azmeralda 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
Alicia Minana 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
Chair of California and the American West
Edward W. Carter Chair in European Art
James and Carol Collins Chair in College of Letters and Science
Brian P. Copenhaver Chair
Lloyd E. Cotsen Chair in Archaeology
D.J. and J.M. Cram Chair in Organic Chemistry
Lore and Gerald Cunard Chair in UCLA/Getty Conservation Program
Charles E. Davidson Endowed Chair in Economics
Charles E. Davidson Endowed Term Chair in Economics
De Logi Chair in Biological Sciences
Donald R. Dickey Chair in Vertebrate Biology
A. Richard Diebold, Jr., Endowed Chair
Distinguished Chair in Environment and Sustainability
Navin and Pratima Doshi Chair in Indian Studies
Dubchansky Endowed Chair in Economics
Dunn Family Endowed Chair in Data Theory
Mr. and Mrs. C. N. Flint Professorship in Philosophy
Christopher S. Foote Term Chair
Evan Frankel Endowed Chair
Andrea M. Ghez Centennial Term Chair in Astronomy and Astrophysics
Benjamin Graham Centennial Endowed Chair in Value Investing
Gloria and Paul Griffin Chair in Philosophy
Haruhsa Handa Professorship in Shinto Studies
John Charles Hillis Chair in Literature
Marvin Hoffenberg Chair in American Politics and Public Policy
Dr. Myung Ki Hong Endowed Chair in Materials Innovation
Dr. Myung Ki Hong Endowed Chair in Polymer Science
Walter Hoppus Chair in Modern and Contemporary Art
Richard Hovannisian Chair in Modern Armenian History
Marcia H. Howard Term Chair in Literary Studies
Wendell Jeffrey and Bernice Wenzel Term Chair in Behavioral Neuroscience
Michael and Alice Jung Endowed Chair in Medicinal Chemistry and Drug Discovery
Sady and Ludwig Kahn Chair in Jewish History
Penny Kanner Endowed Chair in Women’s Studies
Renée and David Kaplan Presidential Endowed Chair in Philosophy
Fred Kavli Chair in Nanosystems Sciences
Kershaw Chair in Ancient Eastern Mediterranean Studies
Ibn Khaldun Endowed Chair in World History
Leon and Joanne V.C. Knopoff Chair in Physics and Geophysics
Alexander and Renee Kolin Endowed Professorship in Molecular Biology and Biophysics
George P. Kolovos Family Centennial Term Chair in Hellenic Studies
Venu and Ana Kotamraju Endowed Chair in Economics
Lauren B. Leichtman and Arthur E. Levine Astrophysics Endowed Chair
Madeleine L. Letessier Chair in French and Francophone Studies
Thomas E. Lifka Chair in History
Kevin Love Fund Centennial Chair
Vladimir and Lydia Markov Chair in Russian Literature
John McTague Career Development Chair
Dorothy L. Meier Social Equities Chair
Anne K. Mellor Presidential Chair in Women’s Writing
Ronald J. Mellor Chair in Ancient History
Sherie and Donald Morrison Chair in Immunology
Sherie L. Morrison Chair in Microbiology, Immunology, and Molecular Genetics
Morrison Family Endowed Chair
Franklin D. Murphy Chair in Italian Renaissance Studies
Narekatsi Chair in Armenian Studies
Gary B. Nash Endowed Chair in United States History
Waldo W. Neikirk Term Chair
LeRoy Neiman Term Chair
Nickoll Family Endowed Chair in History
1939 Society Samuel Goetz Chair in Holocaust Studies
Joan Palevsky Chair in Classics
Pourdaour Endowed Director’s Chair
Presidential Chair in Chemistry
Presidential Chair in Institute of the Environment

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 Aneranos 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
Mani L. Bhaukim Presidential Endowed Chair in Theoretical Physics
Theresa McShane Biggs and Henry P. Biggs Centennial Term Chair in Linguistics
Paul D. Boyer Professorship in Molecular Biology and Biochemistry
Henry J. Bruman Chair in German History
Dr. E. Bradford Burns Chair in Latin American Studies
Robert N. Burr Endowed History Department Chair

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John E. Anderson Graduate School of Management

Allstate Chair in Insurance and Finance
Andersen Worldwide Chair in Management
John E. Anderson Chair in Management

Marion Anderson Chair in Management
Arden Realty Chair
Donnalis ‘86 and Bill Barnum Endowed Term Chair in Management
Robert D. Beyer ‘83 Chair in Management
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
William M. Cockrum Chair in Management
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 Hersh Chair in Money and Banking
Hans Hufschmidt 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 Management and Innovation
Bing (’86) and Alice Liu Yang Endowed Term Chair in Teaching Excellence

David Geffen School of Medicine

William S. Adams, MD, Chair in Medicine
Ahmanson Chair in Ophthalmology
Mary D. Allen Chair in Vision Research
Lori Altshuler Endowed Chair in Mood Disorders
Wallis Annenberg Endowed Chair in Integrative East-West Medicine
Leonard Apat 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-Yaacov Endowed Chair in Psychiatry
Ulrich Batzdorf, MD, Chair in Spinal Neurosurgery
Louis D. Beaumont Chair in Surgery
Donald P. Becker, MD, Term Chair in Neurosurgery
Jerome L. Belzer Chair in Medical Research
Lillian and Alvin L. Bergman Chair in Vascular Research
Bing Professorship in Urologic Research
Anna and Harry Borun Chair in Geriatrics/Gerontology
Bowyer Professorship in Medical Oncology
Saul Brandman Endowed Chair in Pulmonary Arterial Hypertension
Judson Braun Chair in Biological Psychiatry
Geri and Richard Brawerman Chair in Pediatric Neurosurgery
Gary L. Brinderson Family Chair in Neuro-Intensive Care
Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Burnett Family Chair
Ronald W. Busuttil, MD, PhD and Sidney Kimmel Endowed Chair in Transplantation Surgery
Thomas C. Calcagnotto, 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
Elliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
Karen and Frank Dabby Endowed Chair in Ophthalmology
Dr. Alfordina 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 and Roy and Carol Doumani Chair
Roy and Carol Doumani 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
Eric W. Fonkalsrud, MD Endowed Chair in Pediatric Surgery
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
John Douglas French Alzheimer’s Foundation Endowed Chair
Friends of Semel Endowed Term Chair
Joaquin M. Fuster Chair in Cognitive Neuroscience
Joan S. and Ralph N. Goldwyn Endowed Chair in Immunobiology and Nancy and Jonathan Glaser Family Endowed Chair for Pediatric Sarcomas
Victor Goodhill, MD, Chair in Head and Neck Surgery
Laurie and Steven C. Gordon Chair in Neurosciences
Laurie and Steven C. Gordon Chair in Neurosurgery
Steven C. Gordon Family Chair in Parkinson’s Disease Research
Dolly Green Chair in Clinical Research
Dolly Green Chair in Ophthalmology
Dolly Green Chair in Vision Science
Thomas N. Grove Chair in Anesthesiology
Maud Cady Guthman Chair in Cardiology
Muriel Harris Chair in Geriatric Psychiatry
Shirley M. Hatos Chair
Stefan Hatos Endowed Chair in Psychiatry and Biobehavioral Sciences
Gavin S. Herbert Endowed Chair for Macular Degeneration
Ernest G. Herman Chair in Ophthalmology
Christian Herrmann, Jr., MD Endowed Chair in Neuromuscular Disease
Holt and Jo Hickman Endowed Chair in Advanced Lung Disease and Lung Transplantation
Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research
Stanley Izeman and Nancy Stark Endowed Chair in Thoracic Radiation Oncology Research
A. Ray Irving, Jr., MD, Chair in Clinical Ophthalmology
John Jergens Chair in Kidney Transplantation
Kaiser Permanente Chair in Community Medicine
Margaret Holden Jones Kanaan, 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 Kirchgeesser 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
Lyndra and Harold 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 Chair in Ophthalmology
Walton Li Chair in Cornea and Uveitis
Lincy Foundation Chair in Clinical Gastroenterology
Lincy Foundation Distinguished Service Chair
Mark S. Litwin, MD, Endowed Chair in Mentorship
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
Mattel Executive Endowed Chair in Pediatrics
David May II Chair in Ophthalmology
John Mazzotta Endowed Chair in Neurology
John Mazzotta, MD, PhD, 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
Barry J. Mondino Endowed Chair
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
Appendices / 875

Herb Alpert School of Music

Kenny Burrell Chair in Jazz Studies
Susan G. Covel and Mitchel D. Covel, MD, Chair in Music
Mickey Katz Endowed Chair in Jewish Music
Leo M. and Elaine Krown Klein Chair in Performance Studies
Mohindar Brar Sambhi Endowed Chair in Indian Music
Shapiro Family Chair in Piano Performance

School of Nursing

Lulu Wolf Hassenplug Chair in Nursing
Audrienne H. Moseley Chair in Biological Nursing Science
Abigail H. Moseley Chair in Community Health Research
Audrienne H. Moseley Chair in Nursing
Audrienne H. Moseley Endowed Chair in Diversity, Equity, and Inclusion
Shapiro Family Endowed Chair in Developmental Disability Studies
Appendix C: Faculty Honors

Distinguished Teaching Awards

Academic Senate Recipients

Each year the UCLA Alumni Association presents Distinguished Teaching Awards to Academic Senate faculty members. The highly prized awards are presented at the annual Andrea L. Rich Night to Honor Teaching, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during fall quarter.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1961
John F. Barron (Economics)
Hector E. Hall (Physiology)
Kenneth N. Trueblood (Chemistry and Biochemistry)

1962
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)

1963
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Weinstein (Chemistry and Biochemistry)

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. Bartholomew (Biology)
William P. Gerberding (Political Science)
Hans Meyerhoff (Philosophy)
Joseph E. Spencer (Geography)

1967
Basil Gordon (Mathematics)
J.A.C. Grant (Political Science)
William Matthews (English)
David S. Saxon (Physics and Astronomy)
E.K.L. Upton (Physics and Astronomy)

1968
Edward W. Graham (Chemistry and Biochemistry)
W. James Popham (Education)
Sydney C. Rittenberg (Microbiology and Molecular Genetics)
Robert P. Stockwell (Linguistics)
Fred N. White (Physiology)

1969
Robert J. Finkelestein (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 Casarano (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. Dukeminier (Law)
George R. Guffey (English)
Marilyn L. Kourilsky (Education)
Chand R. Viswanathan (Electrical Engineering)

1977
Michael J.B. Allen (English)
Henry M. Cherrick (Dentistry)
Richard C. Maxwell (Law)

1978
J. William Schopf (Earth and Space Sciences)
Verne N. Schumaker (Chemistry and Biochemistry)

1979
William R. Allen (Economics)
Michael E. Jung (Chemistry and Biochemistry)
J. Fred Weston (Management)
Thomas D. Wickens (Psychology)
Johannes Wilbert (Anthropology)

1980
Steven Krantz (Mathematics)
Paul I. Rosenthal (Communication Studies)
Christopher Salter (Geography)
James H. White (Mathematics)
Stephen C. Yeazell (Law)

1981
A.R. Braunmuller (English)
Fredi Chiappelli (Italian)
Kenneth L. Karst (Law)
Richard F. Logan (Geography)
Ronald F. Zernicke (Physiological Science)

1982
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten, Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)

1983
Claude Bernard (Physics and Astronomy)
Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)
Charles M. Knobler (Chemistry and Biochemistry)

1984
Robert Dallek (History)
Hooshang Kangerloo (Radiological Sciences)
Jeffrey Prager (Sociology)
Stanley Siegel (Law)
Sandra A. Thompson (Linguistics)

1985
Patricia M. Greenfield (Psychology)
David F. Martin (Computer Science)
Mark W. Plant (Economics)
Ross P. Shideler (Comparative Literature, Scandinavian Section)
William D. Warren (Law)

1986
Roger A. Gorski (Neurobiology)
Patricia A. Keating (Linguistics)
Leonard Kleinrock (Computer Science)
Martin Wachs (Urban Planning)
Scott L. Waugh (History)
1987
Lawrence W. Bassett (Radiological Sciences)
E. Bradford Burns (History)
Kenneth W. Graham, Jr. (Law)
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)

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)
Phylis A. Guzé (Medicine)
Peter B. Hammond (Anthropology)

1997
Uptal Banerjee (Molecular, Cell, and Developmental Biology)
Christine D. Gutierrez (Education)
Susan McClary (Musical)
Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)
Ivan Szelenyi (Sociology)

1998
George W. Bernard (Dentistry)
Verónica Cortinez (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)
Jesus 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)
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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)
Jenny Kang (Law)
Steven P. Reise (Psychology)

2011
Ann E. Carlson (Law)
Andrew Christensen (Psychology)
Ilan Krouse (Musical)
Patricia E. Phelps (Integrative Biology and Physiology)
Yahya Rahmat-Samii (Electrical Engineering)
Philip W. Rundel (Ecology and Evolutionary Biology)

2012
C. Cindy Fan (Geography)
Brandon Koret (Geriatric Medicine)
Mignon R. Moore (Sociology)
Claudia Parodi-Lewin (Spanish and Portuguese)
Jonathan P. Stewart (Civil and Environmental Engineering)
Christopher S. Tang (Management)

2013
Michael F. Carey (Biological Chemistry)
John J. Colicelli (Biological Chemistry)
Rachelle H. Crosbie-Watson (Integrative Biology and Physiology)
Jonathan H. Grossman (English)
Lynn A. Hunt (History)
David Delgado Shorier (World Arts and Cultures/Dance)
Megan McDonell Sweeney (Sociology)

2014
Paul H. Barber (Ecology and Evolutionary Biology)
Earl G. Freymiller (Dentistry)
Neil K. Garg (Chemistry and Biochemistry)
Hilary A. Godwin (Environmental Health Sciences)
Hiroshi Motomura (Law)
Felicity A. Nussbaum (English)

2015
Robert W. Fink (Musicology)
Alan Garfinkel (Integrative Biology and Physiology, Medicine)
Thomas W. Gillespie (Geography)
Tyrone C. Howard (Education)
Daniel T. Kamei (Bioengineering)
Joanna C. Schwartz (Law)

2016
Joseph E. Bristow (English)
Mark S. Goorsky (Materials Science and Engineering)
Frank A. Laski (Molecular, Cell, and Developmental Biology)
Elisabeth C. Le Guin (Musicology)
James O. Lloyd-Smith (Ecology and Evolutionary Biology)
Steven A. Margulis (Civil and Environmental Engineering)

2017
Donald G. Buth (Ecology and Evolutionary Biology)
Alex C. Purves (Classics)
Eric Sung (Dentistry)
Abigail G. Saguy (Gender Studies, Sociology)
Ingrid Eagly (Law)
Alvaro Sagasti (Molecular, Cell, and Developmental Biology)

2018
Lorrie A. Frasure-Yokley (Political Science)
Christopher M. Keft (Society and Genetics)
David W. MacFadyen (Comparative Literature, Musicology)
Vilma Ortiz (Sociology)
C.E.B. Reas (Design/Media Arts)
Sarah Abrevaya Stein (History)

2019
Anastassia Alexandrova (Chemistry and Biochemistry)
Kathleen Bawn (Political Science)
Gregory F. Grether (Ecology and Evolutionary Biology)
Katsuya Hirano (History)
Eric S. Sheppard (Geography)
Stephanie A. White (Integrative Biology and Physiology)

2020
E. Tendayi Achiume (Law)
Neveen S. El-Farra (Medicine)
MarySue V. Heilemann (Nursing)
David D. Kim (Germanic Languages)
Tamara J. M. Levitz (Comparative Literature)
Matthew D. Lieberman (Psychology)

2021
Alan D. Castel (Psychology)
Yogita Goyal (African American Studies, English)
Cheryl I. Harris (African American Studies, Law)
Thu-Huong Nguyen-Vo (Asian American Studies, Asian Languages and Cultures)
Gina R. Poe (Integrative Biology and Physiology)
Joshua F. Samani (Physics and Astronomy)
Non-Academic Senate Recipients

In spring of 1985, the Office of Instructional Development (now Center for the Advancement of Teaching) began sponsorship of awards to three instructors who are not members of the Academic Senate. This category includes lecturers, and adjunct and clinical faculty members. All non-Academic Senate faculty members who are nominated by their departments are eligible. Recipients are selected by the Academic Senate Committee on Teaching, using the same criteria as those used for Academic Senate members.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1985
L. Geoffrey Cowan (Communication Studies)
Mary Elizabeth Perry (History)
Linda Diane Venis (English)

1986
David Cohen (Mathematics)
Johanna Harris-Heggie (Music)
Paul Von Blum (Interdisciplinary)

1987
Carol D. Berkowitz (Pediatrics)
Jeffrey L. Cole (Communication Studies)
Cheryl Giuliano (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott 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 Proff (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 Dammron-Rodriguez (Social Welfare)
Gerald Wilson (Ethnomusicology)
2007
Nancy Ezer (Near Eastern Languages and Cultures)
Fred A. Hagigi (Health Services)
Eric Marin (Film, Television, and Digital Media)

2008
Leigh C. Harris (Writing Programs)
Chi Li (Ethnomusicology)
Robert B. Trelease (Pathology and Laboratory Medicine)

2009
Brent Corbin (Physics and Astronomy)
Laurence Lavelle (Chemistry and Biochemistry)
Fariba Younai (Dentistry)

2010
Patrick D. Goodman (Law)
Amy H. Kaji (Medicine)
Rory M. Kelly (Film, Television, and Digital Media)

2011
Latifeh E. Hagigi (Near Eastern Languages and Cultures)
Dario Nardi (Anthropology)
John (Jay) Phelan (Life Sciences Core Curriculum)

2012
Stuart Biegel (Education)
Ronald Cooper (Integrative Biology and Physiology)
Michael Lazarus (Medicine)

2013
Randall J. 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)

2018
Karen J. Cunningham (English)
Zhao Li (Chemistry and Biochemistry)
Dana Cairns Watson (Writing Programs)

2019
Jennifer Casey (Chemistry and Biochemistry)
Juliet A. Falce-Robinson (Spanish and Portuguese)
Jorja J. Leap (Social Welfare)

2020
Cindy C. Kratzer (Education)
John G. Branstetter (Political Science)
Margaret E. Davis (Writing Programs)

2021
Justin B. Bernstein (Law)
Anthony R. Friscia (Integrative Biology and Physiology)
Tara L. Prescott-Johnson (Writing Programs)

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)
UCLA University Professors

The title University Professor is reserved for scholars of international distinction, who are recognized and respected as teachers of exceptional ability. Appointments may be made from distinguished tenured faculty. University Professors are appointed by the Regents, at the recommendation of the president after consultation with the chancellor and Academic Senate of the appointee’s home campus.

In over 50 years, only 40 professors throughout the UC system have ever been appointed University Professor. Since 1972, six UCLA faculty have been given this honor, including one active UCLA faculty member.

Donald J. Cram, 1919–2001 (Chemistry and Biochemistry), 1988
Robert B. Edgerton, 1931–2016 (Psychiatry and Biobehavioral Sciences), 1996
M. Frederick Hawthorne, 1928–2021 (Chemistry and Biochemistry) 1998
Julian S. Schwinger, 1918–1994 (Physics), 1980
Lynn Townsend White, Jr., 1907–1987 (History), 1972
Owen N. Witte, 1949– (Microbiology, Immunology, and Molecular Genetics), 2016
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intellectual and developmental disabilities research, 16
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lesbian gay bisexual transgender campus resource, 30
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policy research on aging, 138
population and reproductive health, Bixby, 127
population research, California, 17
prevention research, UCLA, 130
public health and disasters, 129
real estate, Richard S. Ziman, 163
recreation and sports, John R. Wooden, 33
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